

ACIDIC PRECIPITATION
IN ONTARIO STUDY

ANNUAL STATISTICS OF
CONCENTRATION AND DEPOSITION
-CUMULATIVE PRECIPITATION
MONITORING NETWORK, 1985

ARB-006-87-AQM

APIOS-002-87

APRIL 1987



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Ministry
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E. PICHÉ, Director
Air Resources Branch

ACIDIC PRECIPITATION IN ONTARIO STUDY
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PRECIPITATION MONITORING NETWORK, 1985**

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Atmospheric Processes Studies Unit
Air Quality and Meteorology Section
Ontario Ministry of the Environment
Air Resources Branch
800 Bay Street, 4th Floor
Toronto, Ontario
Canada, M5S 1Z8

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A.P.I.O.S. Coordination Office
Ontario Ministry of the Environment
6th Floor, 40 St. Clair Avenue West
Toronto, Ontario
Canada, M4V 1P5

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	Bear Island	24
	Campbellford	13
	Cloyne	14
	Colchester	01
	Coldwater	12
	Dalhousie Mills	16
	Dorion	31
	Dorset	20
	Ear Falls	35
	Exp. Lakes Area	34
	Geraldton	30
	Golden Lake	17
	Gowganda	25
	Huron Park	06
	Killarney	23
	Lac La Croix	33
	Mattawa	22
	McKellar	21
	Merlin	02
	Moonbeam	27
	Moosonee	38
	Otter Island	38
	Palmerston	08
	Pickle Lake	36
	Port Stanley	03
	Quetico Centre	32
	Shallow Lake	09
	Smith's Falls	15
	Turkey Lake	37
	Uxbridge	11
	Waterloo	07
	Whitney	19
	Wilberforce	18
	Wilkesport	04
	Winisk	29
		1
		3
		5
		7
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BY STATION**

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Alvinston	05	85
Azure Lake	26	87
Bear Island	24	89
Campbellford	13	91
Cloyne	14	93
Colchester	01	95
Coldwater	12	97
Dalhousie Mills	16	99
Dorion	31	101
Dorset	20	103
Ear Falls	35	105
Exp. Lakes Area	34	107
Geraldton	30	109
Golden Lake	17	111
Gowganda	25	113
Huron Park	06	115
Killarney	23	117
Lac La Croix	33	119
Mattawa	22	121
McKellar	21	123
Merlin	02	125
Moonbeam	27	127
Moosonee	38	129
Otter Island	38	131
Palmerston	08	133
Pickle Lake	36	135
Port Stanley	03	137
Quetico Centre	32	139
Shallow Lake	09	141
Smith's Falls	15	143
Turkey Lake	37	145
Uxbridge	11	147
Waterloo	07	149
Whitney	19	151
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PART I

INTRODUCTION

INTRODUCTION

This report was prepared by Diane Green. The statistical summaries presented in this report pertain to the 1985 analytical results obtained from the Acidic Precipitation in Ontario Study (APIOS) cumulative precipitation monitoring network. The relevant data can be obtained on request from the Air Resources Branch of The Ontario Ministry of the Environment. All available data are utilized in the calculations except results reported as being unreliable (i.e., results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedures is available from the Ministry upon request) or approximate (i.e., inexact results are reported due to laboratory difficulties, such as may be encountered in calibration, or when the sample cannot be re-analyzed to confirm the reported value). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. Reported results for metals which have missing leachate analysis are also excluded from statistical analysis. Results labelled as $< W$ are replaced by "zero". W is the level which the analytical technique cannot distinguish from zero. If a level is recorded less than the detection limit T , a value corresponding to one half the detection limit is utilized for statistical calculations as reported in the statistical summaries. Note that T is normally about ten times W , and values above the T criteria are considered to be precise and accurate. W corresponds to approximately one standard deviation of low level duplicates of real samples.

The reported cumulative precipitation gauge depth (or Environment Canada's CLIMAT result) is utilized in the calculation of deposition. If a precipitation gauge value is not available, then the collected sample volume is converted to its equivalent precipitation depth and is used in the deposition calculation.

The statistical summaries presented in Parts III to VI include number of samples, mean (arithmetic/geometric), standard deviation (arithmetic/geometric), maximum, minimum, quartiles and precipitation weighted means using precipitation gauge depths where appropriate. These statistics are for an average sampling period. Data which correspond to irregular sampling periods were either combined if they are from consecutive collection periods which span $28d \pm 5d$, or deleted, before the statistics are generated.

PART II

STATION DESCRIPTION AND LOCATION MAP

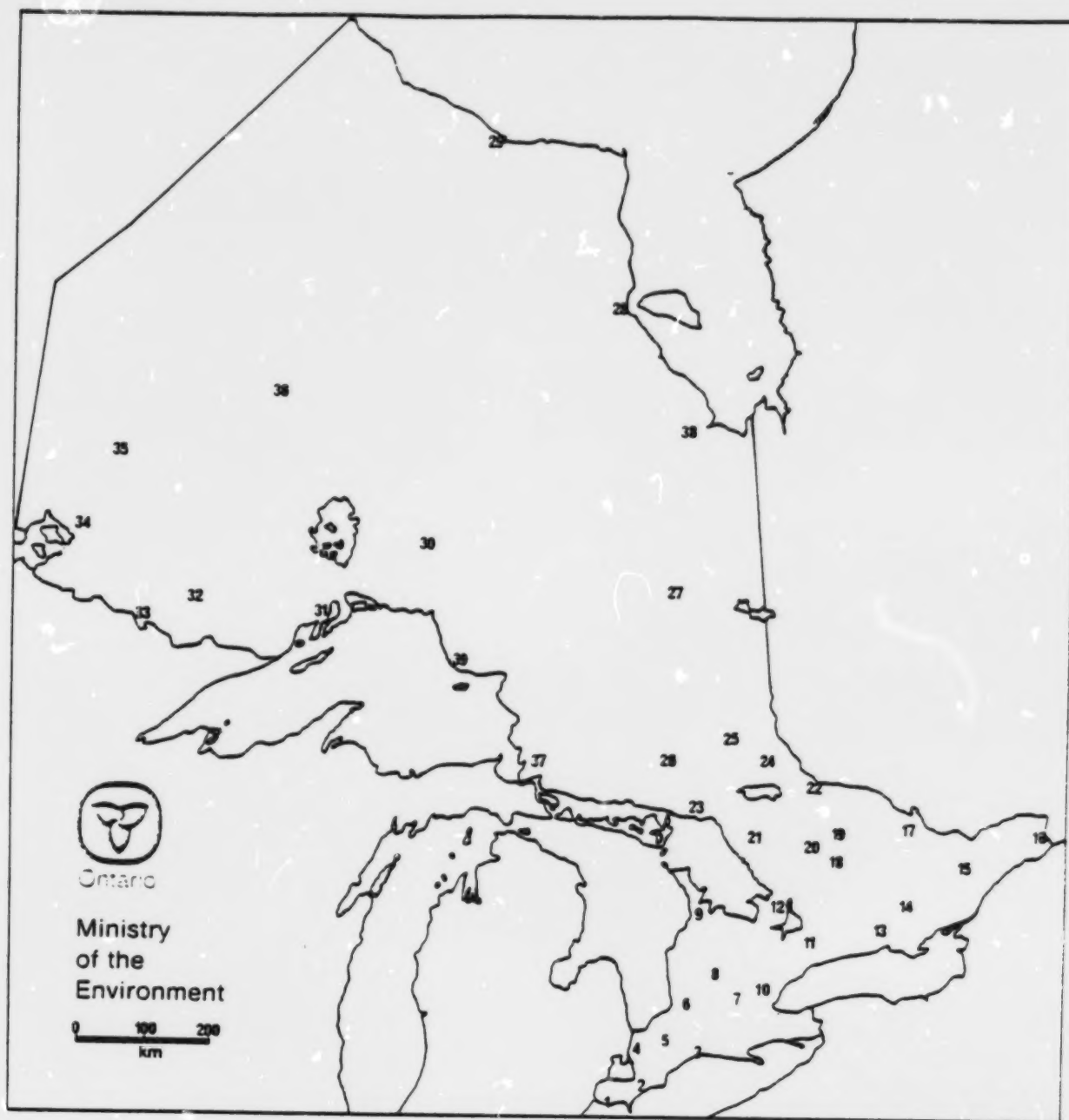
TABLE 1

APIOS CUMULATIVE WET/DRY DEPOSITION NETWORK SITE DESCRIPTIONS

MOE REGION	STATION NAME	STATION NUMBER	INSTRUMENTATION	ELEVATION (m above MSL)	LATITUDE (North)	LONGITUDE (West)	UTM GRID CO-ORDINATES (Northing) (Easting)
Southwestern	Colchester	1041	MIC/Low-Volume Air	183	41°59'15"	82°55'41"	4650000 340300
	Merlin	1051	MIC	191	42°14'47"	82°13'30"	4676400 398950
	Pt. Stanley	1061	MIC/Low-Volume Air	213	42°40'22"	81°09'55"	4724050 466700
	Wilkesport	1071	MIC/Low-Volume Air	183	42°42'11"	82°21'13"	4728350 389150
	Alvinston	1081	MIC	221	42°49'36"	81°50'04"	4942000 431550
	Shallow Lake	1091	MIC/Low-Volume Air	229	44°34'54"	81°05'24"	4936200 492850
	Palmerston	1101	MIC/Low-Volume Air	389	43°48'19"	80°54'12"	4850050 507750
	Huron Park	1191	MIC	250	43°17'28"	81°30'03"	4793000 459350
	Waterloo	2021	MIC	343	43°28'39"	80°35'09"	4813750 533500
	Dorset	3011	MIC/Low-Volume Air	320	45°13'28"	78°55'52"	5009650 662400
Central	Milton	3051	MIC	221	43°31'05"	79°55'54"	4818600 586350
	Uxbridge	3061	MIC/Low-Volume Air	244	44°12'46"	79°12'38"	4896800 643000
	Wilberforce	3071	MIC	396	45°00'54"	78°12'58"	4988150 719400
	Campbellford	3081	MIC/Low-Volume Air	175	44°17'28"	77°47'33"	4907600 277150
	Coldwater	3101	MIC	280	44°37'31"	79°32'08"	4942200 615900
	Kaladar	4051	MIC/Low-Volume Air	244	44°41'31"	77°09'18"	4950800 329250
	Smith's Falls	4061	MIC/Low-Volume Air	122	44°58'41"	75°05'48"	4977100 423950
	Dalhousie Mills	4071	MIC/Low-Volume Air	69	45°19'00"	74°28'13"	5018100 541550
	Golden Lake	4081	MIC/Low-Volume Air	160	45°36'48"	77°12'03"	5053200 328400
	Cloyne	4091	MIC/Low-Volume Air	259	44°49'09"	77°11'45"	4964750 327100
Northeastern	McKellar	5011	MIC/Low-Volume Air	244	45°30'57"	79°55'19"	5040600 583950
	Killarney	5021	MIC/Low-Volume Air	183	45°59'26"	81°29'18"	5092900 462200
	Mattawa	5031	MIC/Low-Volume Air	198	46°18'45"	78°49'19"	5127150 667800
	Bear Island	5041	MIC	305	46°58'22"	80°04'40"	5202400 570350
	Ramsey	5051	MIC	427	47°26'33"	82°20'14"	5254900 399200
	Gowganda	5061	MIC/Low-Volume Air	343	47°39'04"	80°46'32"	5277300 516600
	Moonbeam	5071	MIC/Low-Volume Air	244	49°19'18"	82°08'46"	5463600 416650
	Attawapiskat	5081	MIC/Low-Volume Air	9	52°58'00"	82°24'00"	NA NA
	Whitney	5091	MIC	412	45°32'21"	78°15'35"	5045950 713950
	Turkey Lake	5141	MIC/Low-Volume Air	472	47°03'15"	84°24'00"	5214250 696750
Northwestern	Azure Lake	5151	MIC	244	47°28'12"	81°52'30"	5257650 434250
	Moosonee	5161	MIC/Low-Volume Air	8	51°12'34"	80°42'20"	5673000 520550
	Dorlon	6011	MIC/Low-Volume Air	244	48°50'33"	88°36'45"	5410800 382150
	Nakina	6021	MIC/Low-Volume Air	320	50°10'38"	86°42'90"	5558150 520950
	Bar Falls	6031	MIC/Low-Volume Air	350	50°38'31"	93°13'13"	5609800 484150
	Pickle Lake	6041	MIC/Low-Volume Air	360	51°27'41"	90°12'04"	5704800 694550
	Lac la Croix	6061	MIC	363	48°21'14"	92°12'32"	5355900 558400
	Quetico Centre	6071	MIC/Low-Volume Air	420	48°44'24"	91°12'08"	5399750 632100
	E.L.A.	6091	MIC	123	49°39'22"	93°43'28"	5500950 447350
	Winisk	6101	MIC	9	55°12'00"	85°08'00"	NA NA
	Otter Island	6111	MIC/Low-Volume Air	204	48°06'50"	86°04'25"	5328750 569500
	Geraldton	6121	MIC/Low-Volume Air	351	49°48'05"	86°46'00"	5516300 516750

FIGURE 1

LOCATION OF APIOS CUMULATIVE WET/DRY DEPOSITION NETWORK SITES



1. Colchester*
2. Merlin
3. Pt. Stanley*
4. Wilkesport*
5. Alvinston
6. Huron Park
7. Waterloo
8. Palmerston*
9. Shallow Lake*
10. Milton (removed March 1984)
11. Uxbridge*
12. Coldwater
13. Campbellford*
14. Cloyne*
(replacing Kaladar, June 1983)

15. Smith's Falls*
16. Dalhousie Mills*
17. Golden Lake*
18. Wilberforce
19. Whitney
20. Dorset*
21. McKellar*
22. Mattawa*
23. Killarney*
24. Bear Island
25. Gowganda*
26. Azure Lake
(replacing Ramsey, June 1983)
27. Moonbeam*
28. Attawapiskat
(removed February 1984)

29. Winisk
30. Geraldton*
(replacing Nakina, August 1983)
31. Dorion*
32. Quetico Centre*
33. Lac la Croix
34. Experimental Lakes Area
35. Ear Falls*
36. Pickle Lake*
37. Turkey Lake*
38. Moosonee*
(installed October, 1985)
39. Otter Island*
(operated only during "summer" periods)

* indicates both a dry and wet deposition network site

PART III

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : ALVINSTON/CUMULATIVE PRECIP. #05

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	161.0	53.8	4.60	0.0851	0.1170	6.85	0.990
MINIMUM	19.0	16.5	4.07	0.0251	0.0492	1.25	0.290
RANGE	142.0	37.3	0.53	0.0600	0.0678	5.60	0.700
ARITH. MEAN	69.3	34.4	4.31	0.0536	0.0834	3.59	0.609
ARITH. STD. DEV.	44.6	12.3	0.21	0.0224	0.0250	1.74	0.214
GEOM. MEAN	57.0	32.3	4.31	0.0488	0.0797	3.19	0.574
GEOM. STD. DEV.	2.0	1.5	1.05	1.6082	1.3862	1.69	1.442
1ST QUARTILE	27.5	20.9	4.11	0.0270	0.0530	1.97	0.420
2ND QUARTILE	57.0	36.7	4.21	0.0563	0.0881	3.20	0.560
3RD QUARTILE	88.5	39.8	4.52	0.0693	0.1001	4.40	0.730
VOL. WGT. MEAN	*****	31.5	*****	0.0500	0.0782	3.25	0.526

	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	1.010	0.400	1.200	0.190	0.285	0.140	0.950
MINIMUM	0.200	0.090	0.190	0.045	0.005	0.030	0.095
RANGE	0.810	0.310	1.010	0.145	0.280	0.110	0.855
ARITH. MEAN	0.543	0.211	0.477	0.089	0.080	0.073	0.395
ARITH. STD. DEV.	0.275	0.119	0.271	0.050	0.083	0.044	0.244
GEOM. MEAN	0.480	0.182	0.425	0.079	0.046	0.060	0.328
GEOM. STD. DEV.	1.702	1.775	1.625	1.620	3.307	1.924	1.948
1ST QUARTILE	0.275	0.100	0.285	0.050	0.017	0.030	0.170
2ND QUARTILE	0.440	0.155	0.420	0.070	0.050	0.045	0.350
3RD QUARTILE	0.720	0.315	0.535	0.092	0.108	0.113	0.527
VOL. WGT. MEAN	0.485	0.166	0.400	0.073	0.084	0.056	0.318

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : ALVINSTON/CUMULATIVE PRECIP. #05

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.0240	17.00	1.50	13.90	300.30	18.47	0.70
MINIMUM	0.0010	2.00	0.10	1.49	16.71	0.62	0.20
RANGE	0.0230	15.00	1.40	12.41	283.59	17.85	0.50
ARITH. MEAN	0.0067	5.55	0.61	8.36	84.36	6.40	0.30
ARITH. STD. DEV.	0.0072	4.13	0.39	3.94	77.93	5.01	0.18
GEOM. MEAN	0.0043	4.68	0.49	7.21	62.68	4.72	0.26
GEOM. STD. DEV.	2.6728	1.76	2.15	1.91	2.22	2.46	1.63
1ST QUANTILE	0.0020	3.00	0.25	4.74	29.66	2.81	0.20
2ND QUANTILE	0.0027	4.00	0.50	7.78	73.07	4.36	0.20
3RD QUANTILE	0.0075	5.50	0.80	10.92	84.82	8.50	0.30
VOL. WGT. MEAN	0.0047	4.36	0.58	6.71	59.93	4.49	0.26

CADMIUM

COPPER

ALUMINUM

	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11
MAXIMUM	352.30	2.32	1.36
MINIMUM	20.72	0.42	0.01
RANGE	331.58	1.90	1.35
ARITH. MEAN	90.72	1.30	0.35
ARITH. STD. DEV.	92.95	0.65	0.47
GEOM. MEAN	65.04	1.14	0.14
GEOM. STD. DEV.	2.27	1.74	4.50
1ST QUANTILE	27.60	0.64	0.04
2ND QUANTILE	67.94	1.22	0.11
3RD QUANTILE	102.10	1.65	0.41
VOL. WGT. MEAN	62.08	1.01	0.36

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : AZURE LAKE/CUMULATIVE PRECIP. #26

PERIOD OF REPORT : JAN 29,85 TO JAN 2,86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
12	12	12	12	12	12	12	12
MAXIMUM	109.0	46.6	4.66	0.1023	0.1220	4.55	0.520
MINIMUM	44.7	12.7	3.99	0.0219	0.0455	0.80	0.180
RANGE	64.3	33.9	0.67	0.0805	0.0765	3.75	0.340
ARITH. MEAN	68.1	22.2	4.44	0.0405	0.0646	1.96	0.329
ARITH. STD. DEV	20.5	9.2	0.19	0.0222	0.0208	1.08	0.115
GEOM. MEAN	65.6	20.9	4.43	0.0367	0.0622	1.72	0.311
GEOM. STD. DEV.	1.3	1.4	1.04	1.5466	1.3052	1.71	1.420
1ST QUARTILE	52.5	18.1	4.38	0.0274	0.0540	0.97	0.240
2ND QUARTILE	67.0	19.6	4.45	0.0355	0.0574	1.93	0.305
3RD QUARTILE	72.0	21.3	4.56	0.0422	0.0655	2.20	0.425
VOL. WGT. MEAN	*****	21.5	*****	0.0388	0.0631	1.92	0.320

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
12	12	12	12	12	12	12	12
MAXIMUM	0.230	0.230	0.500	0.035	0.065	0.160	0.360
MINIMUM	0.000	0.010	0.030	0.002	0.000	0.002	0.000
RANGE	0.230	0.220	0.470	0.032	0.065	0.158	0.360
ARITH. MEAN	0.139	0.082	0.275	0.022	0.025	0.030	0.179
ARITH. STD. DEV	0.074	0.061	0.157	0.012	0.023	0.045	0.119
GEOM. MEAN	0.161	0.059	0.217	0.017	0.022	0.015	0.185
GEOM. STD. DEV.	1.719	2.586	2.299	2.656	3.782	2.061	2.082
1ST QUARTILE	0.095	0.027	0.125	0.014	0.002	0.008	0.192
2ND QUARTILE	0.135	0.090	0.320	0.025	0.025	0.010	0.287
3RD QUARTILE	0.205	0.105	0.405	0.030	0.045	0.026	0.186
VOL. WGT. MEAN	0.138	0.074	0.280	0.022	0.024		

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : AZURE LAKE/CUMULATIVE PRECIP. #26

PERIOD OF REPORT : JAN 29,85 TO JAN 2,86

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.0240	14.00	2.00	10.88	120.90	9.78	0.40
MINIMUM	0.0010	0.50	0.10	1.21	5.73	1.21	0.20
RANGE	0.0230	13.50	1.90	9.67	115.17	8.57	0.20
ARITH. MEAN	0.0078	2.79	0.52	4.48	36.66	5.25	0.23
ARITH. STD. DEV.	0.0068	3.71	0.49	2.73	31.99	2.84	0.08
GEOM. MEAN	0.0052	1.68	0.40	3.75	26.18	4.33	0.22
GEOM. STD. DEV.	2.7590	2.71	2.02	1.91	2.45	2.04	1.31
1ST QUANTILE	0.0022	0.75	0.30	2.56	13.07	2.88	0.20
2ND QUANTILE	0.0070	2.00	0.40	4.24	32.74	5.33	0.20
3RD QUANTILE	0.0110	3.00	0.50	5.83	40.34	7.54	0.20
VOL. WGT. MEAN	0.0074	2.66	0.49	4.28	34.09	4.96	0.23

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12
MAXIMUM	119.20	4.70	0.15
MINIMUM	10.73	0.17	0.04
RANGE	108.47	4.53	0.11
ARITH. MEAN	36.13	1.67	0.07
ARITH. STD. DEV.	28.34	1.29	0.03
GEOM. MEAN	31.25	1.24	0.06
GEOM. STD. DEV.	1.92	2.44	1.41
1ST QUANTILE	21.35	0.85	0.05
2ND QUANTILE	34.56	1.31	0.06
3RD QUANTILE	42.35	2.06	0.07
VOL. WGT. MEAN	35.64	1.57	0.07

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BEAR ISLAND/CUMULATIVE PRECIP. #24

PERIOD OF REPORT : JAN 2.85 TO OCT 8.85

PAGE : 1

# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
:	MM	UMHO/CM	LAB	LAB	GRAM	MG/L	AS N
MAXIMUM	7	6	7	7	6	6	6
MINIMUM	95.0	36.2	4.38	0.0646	0.0805	5.00	0.710
RANGE	18.0	21.3	4.19	0.0417	0.0585	0.85	0.290
ARITH. MEAN	77.0	14.9	0.19	0.0229	0.0220	4.15	0.420
ARITH. STD. DEV.	52.6	27.0	4.33	0.0468	0.0722	2.74	0.493
GEOM. MEAN	28.6	5.8	0.07	0.0081	0.0086	1.62	0.151
GEOM. STD. DEV.	45.2	26.5	4.33	0.0463	0.0718	2.30	0.473
1ST QUARTILE	1.9	1.2	1.02	1.1649	1.1320	1.99	1.379
2ND QUARTILE	22.6	22.0	4.25	0.0422	0.0629	1.05	0.345
3RD QUARTILE	43.5	26.1	4.36	0.0437	0.0732	2.57	0.490
VOL. WGT. MEAN	70.5	29.6	4.36	0.0458	0.0785	3.47	0.570
	*****	26.9	*****	0.0488	0.0719	2.73	0.476

# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
:	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
MAXIMUM	5	6	6	6	5	6	7
MINIMUM	0.280	0.230	1.260	0.165	0.155	0.060	2.800
RANGE	0.005	0.060	0.110	0.005	0.015	0.030	0.070
ARITH. MEAN	0.275	0.170	1.150	0.160	0.140	0.050	2.730
ARITH. STD. DEV.	0.145	0.152	0.502	0.050	0.077	0.060	0.644
GEOM. MEAN	0.107	0.062	0.425	0.060	0.056	0.018	0.978
GEOM. STD. DEV.	0.082	0.139	0.358	0.026	0.057	0.057	0.304
1ST QUARTILE	5.051	1.628	2.574	3.674	2.604	1.427	3.506
2ND QUARTILE	0.053	0.085	0.120	0.006	0.023	0.040	0.090
3RD QUARTILE	0.110	0.155	0.465	0.030	0.060	0.065	0.210
VOL. WGT. MEAN	0.170	0.185	0.580	0.047	0.092	0.070	0.555
	0.132	0.143	0.541	0.043	0.081	0.061	0.964

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BEAR ISLAND/CUMULATIVE PRECIP. #24

PERIOD OF REPORT : JAN 2,85 TO OCT 8,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	6	5	6	6	6	6	6
MAXIMUM	0.1360	6.00	2.30	26.47	103.30	20.71	0.70
MINIMUM	0.0010	1.00	0.40	4.64	10.58	1.44	0.20
RANGE	0.1350	5.00	1.90	21.83	92.72	19.27	0.50
ARITH. MEAN	0.0423	3.00	0.95	11.22	55.29	8.22	0.32
ARITH. STD. DEV.	0.0517	2.00	0.73	9.57	37.99	7.07	0.20
GEOM. MEAN	0.0148	2.49	0.77	9.01	43.07	5.95	0.28
GEOM. STD. DEV.	7.0005	2.00	1.97	2.03	2.32	2.50	1.70
1ST QUARTILE	0.0015	1.50	0.40	4.85	21.77	2.86	0.20
2ND QUARTILE	0.0240	2.00	0.70	7.84	42.23	5.34	0.20
3RD QUARTILE	0.0455	3.00	1.00	12.89	73.53	8.84	0.30
VOL. WGT. MEAN	0.0385	3.00	0.77	10.25	50.23	7.28	0.27

ALUMINIUM

COPPER

CADMIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	6	6	6
MAXIMUM	99.95	3.09	0.15
MINIMUM	21.49	0.48	0.11
RANGE	78.46	2.62	0.04
ARITH. MEAN	50.67	1.89	0.13
ARITH. STD. DEV.	26.53	1.07	0.02
GEOM. MEAN	45.62	1.56	0.13
GEOM. STD. DEV.	1.65	2.08	1.13
1ST QUARTILE	29.49	0.71	0.11
2ND QUARTILE	46.42	1.94	0.13
3RD QUARTILE	51.21	2.64	0.13
VOL. WGT. MEAN	52.41	1.81	0.13

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CAMPBELLFORD/CUMULATIVE PRECIP. #13

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	11	10	10	10	10	10	10
MINIMUM	165.0	64.7	4.80	0.1122	0.1470	9.00	1.190
RANGE	20.0	18.6	3.95	0.0150	0.0573	1.55	0.270
ARITH. MEAN	145.0	46.1	0.85	0.0964	0.0897	7.45	0.920
ARITH. STD. DEV.	68.8	37.9	4.33	0.0554	0.0922	4.25	0.779
GEOM. MEAN	45.5	15.7	0.28	0.0311	0.0310	2.39	0.310
GEOM. STD. DEV.	56.0	35.2	4.32	0.0468	0.0878	3.65	0.709
1ST QUARTILE	2.0	1.5	1.07	1.9121	1.3653	1.82	1.634
2ND QUARTILE	28.0	24.5	4.09	0.0259	0.0647	1.93	0.445
3RD QUARTILE	55.3	35.8	4.30	0.0507	0.0902	4.45	0.825
VOL. MGT. MEAN	84.0	41.4	4.45	0.0751	0.1015	5.25	0.945
	*****	31.5	*****	0.0414	0.0788	3.86	0.628

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	9	10	10	10	10	10	10
MINIMUM	1.160	0.460	1.350	0.185	0.235	0.310	0.905
RANGE	0.170	0.025	0.160	0.008	0.000	0.002	0.095
ARITH. MEAN	0.990	0.435	1.190	0.177	0.235	0.308	0.810
ARITH. STD. DEV.	0.656	0.237	0.789	0.080	0.067	0.085	0.543
GEOM. MEAN	0.399	0.124	0.429	0.062	0.069	0.086	0.321
GEOM. STD. DEV.	0.527	0.193	0.646	0.054	0.063	0.052	0.425
1ST QUARTILE	2.111	2.275	2.102	2.886	3.403	3.518	2.287
2ND QUARTILE	0.260	0.130	0.285	0.020	0.016	0.032	0.192
3RD QUARTILE	0.535	0.245	0.845	0.077	0.050	0.060	0.680
VOL. MGT. MEAN	0.960	0.285	1.050	0.100	0.065	0.090	0.805
	0.663	0.186	0.769	0.064	0.088	0.059	0.548

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CAMPBELLFORD/CUMULATIVE PRECIP. #13

PERIOD OF REPORT : JAN 2.85 TO DEC 31.85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	10	9	9	9	9	9	9
MAXIMUM	0.0850	21.00	0.80	11.57	293.80	28.42	0.60
MINIMUM	0.0025	1.00	0.10	2.93	12.22	2.23	0.20
RANGE	0.0825	20.00	0.70	8.64	281.58	26.19	0.40
ARITH. MEAN	0.0237	7.33	0.43	7.53	101.22	8.96	0.28
ARITH. STD. DEV	0.0263	6.32	0.28	3.51	88.80	7.86	0.16
GEOM. MEAN	0.0140	4.80	0.34	6.69	66.48	6.92	0.25
GEOM. STD. DEV.	2.9768	2.96	2.28	1.72	2.93	2.10	1.56
1ST QUARTILE	0.0070	1.50	0.15	3.84	27.01	3.83	0.20
2ND QUARTILE	0.0095	6.50	0.35	6.87	72.33	6.96	0.20
3RD QUARTILE	0.0310	8.00	0.60	10.14	121.55	8.44	0.20
VOL. WGT. MEAN	0.0327	6.33	0.47	7.39	74.22	6.46	0.25

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	9	9	9
MAXIMUM	558.90	3.13	0.41
MINIMUM	16.12	0.34	0.05
RANGE	542.78	2.80	0.36
ARITH. MEAN	126.37	1.13	0.19
ARITH. STD. DEV	170.98	0.95	0.14
GEOM. MEAN	68.56	0.84	0.15
GEOM. STD. DEV.	3.14	2.27	2.08
1ST QUARTILE	25.64	0.39	0.09
2ND QUARTILE	62.96	0.61	0.11
3RD QUARTILE	100.14	1.42	0.22
VOL. WGT. MEAN	87.12	0.91	0.18

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CLOYNE/CUMULATIVE PRECIP. #14

PERIOD OF REPORT : JAN 2.85 TO DEC 31.85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	13	13	13	13	13	13	13
MINIMUM	150.0	50.6	4.74	0.0912	0.1180	5.70	1.260
RANGE	22.0	18.3	4.04	0.0182	0.0423	1.35	0.280
ARITH. MEAN	128.0	32.3	0.70	0.0730	0.0757	4.35	0.980
ARITH. STD. DEV	72.0	32.8	4.28	0.0569	0.0851	2.87	0.591
GEOM. MEAN	33.3	10.4	0.20	0.0215	0.0241	1.41	0.276
GEOM. STD. DEV.	64.9	31.2	4.28	0.0524	0.0816	2.58	0.539
1ST QUANTILE	1.6	1.4	1.05	1.5773	1.3676	1.63	1.553
2ND QUANTILE	48.0	22.3	4.14	0.0394	0.0653	1.73	0.395
3RD QUANTILE	63.5	31.2	4.18	0.0579	0.0867	2.40	0.485
VOL. WGT. MEAN	85.5	39.0	4.36	0.0684	0.0944	3.45	0.690
	*****	30.6	*****	0.0535	0.0814	2.75	0.500

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	13	13	13	13	13	13	13
MINIMUM	1.070	0.290	0.850	0.085	0.055	0.165	0.755
RANGE	0.020	0.020	0.180	0.002	0.000	0.008	0.110
ARITH. MEAN	1.050	0.270	0.670	0.082	0.055	0.157	0.645
ARITH. STD. DEV	0.283	0.132	0.392	0.033	0.028	0.052	0.311
GEOM. MEAN	0.297	0.075	0.228	0.027	0.020	0.048	0.209
GEOM. STD. DEV.	0.174	0.110	0.341	0.022	0.027	0.033	0.260
1ST QUANTILE	2.933	1.971	1.699	2.917	3.153	2.765	1.829
2ND QUANTILE	0.085	0.085	0.215	0.011	0.004	0.015	0.163
3RD QUANTILE	0.165	0.095	0.290	0.025	0.030	0.027	0.230
VOL. WGT. MEAN	0.275	0.165	0.415	0.040	0.040	0.065	0.330
	0.223	0.113	0.338	0.027	0.022	0.043	0.278

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CLOYNE/CUMULATIVE PRECIP. #14

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	13	12	12	12	12	12	12
MAXIMUM	0.0260	16.00	1.00	10.38	256.70	12.76	0.20
MINIMUM	0.0005	0.50	0.10	2.42	7.58	2.18	0.20
RANGE	0.0255	15.50	0.90	7.96	249.12	10.58	0.00
ARITH. MEAN	0.0065	3.21	0.37	4.96	50.50	4.58	0.20
ARITH. STD. DEV	0.0082	4.23	0.33	2.61	67.26	3.17	0.00
GEOM. MEAN	0.0030	2.00	0.26	4.43	32.31	3.90	0.20
GEOM. STD. DEV.	3.7859	2.55	2.43	1.63	2.45	1.73	1.00
1ST QUARTILE	0.0010	1.00	0.10	3.20	18.78	2.54	0.20
2ND QUARTILE	0.0025	2.00	0.25	3.89	32.57	3.35	0.20
3RD QUARTILE	0.0070	4.00	0.60	6.50	50.32	5.38	0.20
VOL. WGT. MEAN	0.0043	2.67	0.41	4.41	41.93	4.27	0.20

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12
MAXIMUM	235.00	1.68	0.12
MINIMUM	12.07	0.14	0.01
RANGE	222.93	1.53	0.11
ARITH. MEAN	49.33	0.81	0.06
ARITH. STD. DEV	60.76	0.40	0.04
GEOM. MEAN	33.98	0.69	0.05
GEOM. STD. DEV.	2.22	1.93	2.17
1ST QUARTILE	22.03	0.66	0.02
2ND QUARTILE	28.33	0.79	0.05
3RD QUARTILE	52.49	1.00	0.09
VOL. WGT. MEAN	41.12	0.79	0.06

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : COLCHESTER/CUMULATIVE PRECIP. 801

PERIOD OF REPORT : JAN 1,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
:	13	13	13	13	13	13	13
MAXIMUM	230.3	50.1	4.71	0.0832	0.1170	6.65	0.970
MINIMUM	16.0	17.9	4.08	0.0195	0.0429	1.55	0.170
RANGE	214.3	32.2	0.63	0.0637	0.0741	5.10	0.800
ARITH. MEAN	84.6	35.2	4.30	0.0553	0.0853	3.96	0.577
ARITH. STD. DEV	56.2	10.3	0.21	0.0220	0.0236	1.66	0.204
GEOM. MEAN	68.2	33.5	4.29	0.0504	0.0817	3.61	0.535
GEOM. STD. DEV.	2.1	1.4	1.05	1.6183	1.3730	1.59	1.561
1ST QUARTILE	35.5	26.9	4.13	0.0318	0.0619	2.38	0.480
2ND QUARTILE	71.5	37.2	4.20	0.0558	0.0887	3.88	0.560
3RD QUARTILE	107.5	40.0	4.38	0.0724	0.1020	4.88	0.685
VOL. WGT. MEAN	*****	34.9	*****	0.0528	0.0831	4.14	0.552

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	12	13	12	12	12	12	13
MAXIMUM	0.990	0.590	1.820	0.280	0.195	0.230	1.480
MINIMUM	0.190	0.120	0.250	0.030	0.000	0.035	0.125
RANGE	0.800	0.470	1.570	0.250	0.195	0.195	1.355
ARITH. MEAN	0.467	0.282	0.742	0.108	0.072	0.099	0.508
ARITH. STD. DEV	0.268	0.129	0.469	0.076	0.058	0.054	0.383
GEOM. MEAN	0.407	0.259	0.631	0.088	0.080	0.087	0.402
GEOM. STD. DEV.	1.705	1.535	1.800	1.940	1.964	1.719	2.046
1ST QUARTILE	0.270	0.195	0.415	0.060	0.032	0.055	0.210
2ND QUARTILE	0.380	0.240	0.590	0.085	0.047	0.095	0.402
3RD QUARTILE	0.620	0.295	0.985	0.127	0.100	0.130	0.557
VOL. WGT. MEAN	0.432	0.263	0.870	0.089	0.084	0.088	0.614

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

801

STATION NAME : COLCHESTER/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 1,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	13	13	13	13	13	13
MAXIMUM	0.1420	12.00	2.60	24.49	266.50	10.36	0.60
MINIMUM	0.0015	1.00	0.20	4.32	15.18	0.72	0.20
RANGE	0.1405	11.00	2.40	20.17	251.32	9.64	0.40
ARITH. MEAN	0.0230	4.08	0.85	11.45	76.51	5.68	0.30
ARITH. STD. DEV.	0.0398	2.84	0.75	5.24	72.07	3.21	0.14
GEOM. MEAN	0.0084	3.30	0.61	10.43	54.47	4.59	0.27
GEOM. STD. DEV.	4.2637	2.01	2.37	1.58	2.34	2.17	1.53
1ST QUANTILE	0.0022	2.00	0.30	7.44	28.55	2.74	0.20
2ND QUANTILE	0.0065	4.00	0.45	10.15	52.08	5.68	0.20
3RD QUANTILE	0.0270	4.50	1.20	13.34	73.45	6.85	0.40
VOL. WGT. MEAN	0.0374	3.37	1.05	10.60	55.34	4.98	0.27

CADMIUM

COPPER

ALUMINUM

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	13	12	13
MAXIMUM	308.10	5.57	0.46
MINIMUM	20.88	0.22	0.01
RANGE	287.22	5.36	0.45
ARITH. MEAN	87.90	1.61	0.14
ARITH. STD. DEV.	82.31	1.59	0.12
GEOM. MEAN	63.79	1.08	0.10
GEOM. STD. DEV.	2.23	2.58	2.53
1ST QUANTILE	36.17	0.54	0.07
2ND QUANTILE	46.74	1.04	0.09
3RD QUANTILE	82.29	2.18	0.12
VOL. WGT. MEAN	67.90	1.98	0.13

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : COLDWATER/CUMULATIVE PRECIP. #12
PERIOD OF REPORT : DEC 31,84 TO JAN 3,86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	13	13	13	13	13	13	13
MINIMUM	243.0	33.0	5.10	0.0537	0.0787	4.15	0.810
RANGE	29.0	6.1	4.27	0.0079	0.0277	0.35	0.093
ARITH. MEAN	214.0	26.9	0.83	0.0458	0.0510	3.80	0.720
ARITH. STD. DEV	84.2	24.0	4.49	0.0360	0.0623	2.63	0.474
GEOM. MEAN	54.6	8.0	0.24	0.0142	0.0163	1.36	0.196
GEOM. STD. DEV.	72.8	22.2	4.49	0.0322	0.0598	2.16	0.424
1ST QUANTILE	1.7	1.6	1.05	1.7381	1.3693	2.13	1.744
2ND QUANTILE	52.3	17.7	4.34	0.0245	0.0466	1.40	0.370
3RD QUANTILE	59.0	26.0	4.36	0.0417	0.0676	2.52	0.415
VOL. WGT. MEAN	100.0	28.6	4.58	0.0452	0.0744	3.90	0.555
	*****	22.5	*****	0.0332	0.0592	2.43	0.421

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	13	13	13	13	13	13	13
MINIMUM	0.840	0.600	1.020	0.160	0.110	0.255	0.885
RANGE	0.070	0.020	0.130	0.000	0.000	0.010	0.060
ARITH. MEAN	0.770	0.580	0.890	0.160	0.110	0.245	0.825
ARITH. STD. DEV	0.395	0.171	0.492	0.058	0.040	0.069	0.387
GEOM. MEAN	0.268	0.140	0.309	0.049	0.038	0.066	0.273
GEOM. STD. DEV.	0.283	0.134	0.402	0.053	0.031	0.048	0.282
1ST QUANTILE	2.580	2.130	1.978	3.055	3.958	2.546	2.498
2ND QUANTILE	0.105	0.105	0.230	0.015	0.004	0.027	0.125
3RD QUANTILE	0.395	0.135	0.390	0.042	0.032	0.042	0.320
VOL. WGT. MEAN	0.580	0.170	0.615	0.087	0.052	0.070	0.510
	0.288	0.159	0.522	0.042	0.045	0.065	0.390

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

#12

STATION NAME : COLDWATER/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31,84 TO JAN 3,86

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	13	12	12	12	12	12	12
MAXIMUM	0.1170	14.00	0.60	13.80	364.50	14.34	0.50
MINIMUM	0.0015	0.50	0.10	1.54	12.15	1.13	0.20
RANGE	0.1155	13.50	0.50	12.26	352.35	13.21	0.30
ARITH. MEAN	0.0190	4.54	0.28	6.20	73.05	6.95	0.26
ARITH. STD. DEV	0.0305	3.85	0.16	4.18	99.03	3.72	0.11
GEOM. MEAN	0.0095	3.10	0.24	4.08	42.71	5.83	0.24
GEOM. STD. DEV.	3.3343	2.70	1.96	2.12	2.74	2.00	1.42
1ST QUARTILE	0.0047	1.50	0.10	2.41	16.88	3.76	0.20
2ND QUARTILE	0.0105	4.00	0.30	5.52	39.93	6.85	0.20
3RD QUARTILE	0.0145	6.00	0.35	9.92	71.95	9.42	0.30
VOL. WGT. MEAN	0.0354	4.25	0.24	5.30	56.99	5.48	0.24

CADMIUM

COPPER

ALUMINIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	11
MAXIMUM	280.70	4.29	0.19
MINIMUM	14.17	0.15	0.02
RANGE	266.53	4.14	0.17
ARITH. MEAN	75.79	1.48	0.09
ARITH. STD. DEV	92.09	1.14	0.06
GEOM. MEAN	46.04	1.08	0.07
GEOM. STD. DEV.	2.64	2.49	2.21
1ST QUARTILE	21.31	0.65	0.02
2ND QUARTILE	39.23	1.49	0.07
3RD QUARTILE	68.93	1.84	0.12
VOL. WGT. MEAN	58.65	1.59	0.07

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DALHOUSE MILLS/CUMULATIVE PRECIP. #16

PERIOD OF REPORT : JAN 2.85 TO DEC 31.85

PAGE : 1

# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
	MM	UMHO/CM	LAB	LAB	GRAM	MG/L	AS N
				MG/L	MG/L	MG/L	MG/L
13		12	11	11	12	12	12
MAXIMUM	91.0	40.7	5.27	0.0708	0.1230	4.95	0.760
MINIMUM	20.0	7.9	4.15	0.0054	0.0252	0.70	0.140
RANGE	71.0	32.8	1.12	0.0654	0.0978	4.25	0.620
ARITH. MEAN	60.6	25.1	4.52	0.0364	0.0660	2.67	0.472
ARITH. STD. DEV	23.2	9.5	0.31	0.0195	0.0273	1.39	0.201
GEOM. MEAN	55.6	22.9	4.51	0.0303	0.0607	2.28	0.419
GEOM. STD. DEV.	1.6	1.6	1.07	2.0642	1.5558	1.87	1.770
1ST QUARTILE	36.5	21.6	4.26	0.0192	0.0485	1.52	0.355
2ND QUARTILE	63.5	26.2	4.41	0.0304	0.0617	2.47	0.495
3RD QUARTILE	78.0	30.3	4.63	0.0484	0.0801	3.93	0.625
VOL. MGT. MEAN	*****	24.6	*****	0.0373	0.0661	2.60	0.451

# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
			MG/L	MG/L	MG/L	MG/L	MG/L
10		11	11	10	9	11	11
MAXIMUM	1.040	0.340	1.270	0.160	0.110	0.215	0.885
MINIMUM	0.070	0.090	0.140	0.005	0.002	0.015	0.085
RANGE	0.970	0.250	1.130	0.155	0.108	0.200	0.800
ARITH. MEAN	0.355	0.167	0.518	0.053	0.049	0.077	0.360
ARITH. STD. DEV	0.285	0.082	0.336	0.041	0.034	0.059	0.239
GEOM. MEAN	0.288	0.151	0.429	0.041	0.033	0.060	0.292
GEOM. STD. DEV.	2.005	1.604	1.932	2.376	3.310	2.121	2.010
1ST QUARTILE	0.200	0.090	0.220	0.035	0.020	0.017	0.032
2ND QUARTILE	0.330	0.135	0.425	0.042	0.047	0.057	0.147
3RD QUARTILE	0.360	0.230	0.655	0.055	0.062	0.092	0.260
VOL. MGT. MEAN	0.303	0.153	0.459	0.047	0.044	0.076	0.517
							0.322

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DALHOUSIE MILLS/CUMULATIVE PRECIP. #816

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANSE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	11	12	12	12	12	12	12
MAXIMUM	0.0570	18.00	1.50	11.97	267.20	13.94	0.80
MINIMUM	0.0000	0.50	0.10	2.42	10.10	2.66	0.20
RANGE	0.0570	17.50	1.40	9.55	257.10	11.28	0.60
ARITH. MEAN	0.0105	5.54	0.65	6.18	51.45	7.21	0.32
ARITH. STD. DEV	0.0163	4.55	0.48	2.84	70.33	4.06	0.22
GEOM. MEAN	0.0090	4.10	0.46	5.61	32.96	6.22	0.27
GEOM. STD. DEV.	3.5586	2.43	2.57	1.59	2.38	1.77	1.73
1ST QUARTILE	0.0012	3.00	0.27	4.04	18.60	3.88	0.20
2ND QUARTILE	0.0042	4.50	0.55	5.39	29.24	5.73	0.20
3RD QUARTILE	0.0100	7.00	1.00	7.37	51.91	10.75	0.35
VOL. WGT. MEAN	0.0075	5.17	0.63	6.09	43.41	7.23	0.30

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	11	12	12
MAXIMUM	130.10	13.01	0.24
MINIMUM	23.60	0.16	0.01
RANGE	106.50	12.85	0.23
ARITH. MEAN	52.38	2.21	0.14
ARITH. STD. DEV	32.95	3.49	0.09
GEOM. MEAN	45.40	1.10	0.10
GEOM. STD. DEV.	1.70	3.38	3.25
1ST QUARTILE	30.03	0.46	0.06
2ND QUARTILE	37.03	1.37	0.19
3RD QUARTILE	60.50	1.92	0.21
VOL. WGT. MEAN	52.32	1.76	0.14

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORION/CUMULATIVE PRECIP. 831

PERIOD OF REPORT : JAN 2.85 TO DEC 31.85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
13	13	13	13	13	13	13	13
MAXIMUM	187.0	22.8	6.27	0.0363	0.0683	2.40	0.610
MINIMUM	14.1	8.0	4.44	0.0005	0.0221	0.55	0.120
RANGE	172.9	14.8	1.83	0.0358	0.0467	1.85	0.490
ARITH. MEAN	69.4	12.9	4.89	0.0170	0.0400	1.27	0.266
ARITH. STD. DEV.	50.6	3.7	0.46	0.0091	0.0124	0.54	0.128
GEOM. MEAN	51.9	12.5	4.87	0.0129	0.0383	1.16	0.244
GEOM. STD. DEV.	2.3	1.3	1.09	2.8810	1.3542	1.56	1.524
1ST QUANTILE	20.9	10.5	4.66	0.0110	0.0322	0.77	0.105
2ND QUANTILE	60.0	12.0	4.74	0.0168	0.0372	1.20	0.225
3RD QUANTILE	91.8	14.0	4.84	0.0204	0.0428	1.50	0.300
VOL. WGT. MEAN	*****	12.3	*****	0.0160	0.0379	1.33	0.227

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
13	13	13	13	13	13	13	13
MAXIMUM	0.660	0.220	0.770	0.085	0.055	0.210	0.665
MINIMUM	0.050	0.000	0.090	0.002	0.000	0.008	0.030
RANGE	0.610	0.220	0.680	0.082	0.055	0.202	0.635
ARITH. MEAN	0.218	0.080	0.331	0.030	0.022	0.073	0.240
ARITH. STD. DEV.	0.169	0.079	0.206	0.025	0.020	0.067	0.196
GEOM. MEAN	0.169	0.096	0.275	0.020	0.030	0.044	0.163
GEOM. STD. DEV.	2.131	2.807	1.905	2.900	3.465	3.138	2.727
1ST QUANTILE	0.100	0.017	0.155	0.008	0.002	0.022	0.070
2ND QUANTILE	0.145	0.030	0.275	0.020	0.016	0.037	0.167
3RD QUANTILE	0.285	0.140	0.390	0.037	0.035	0.102	0.335
VOL. WGT. MEAN	0.206	0.041	0.334	0.029	0.021	0.040	0.253

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORION/CUMULATIVE PRECIP.

#31

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.0220	8.00	0.50	29.01	89.58	22.23	0.20
MINIMUM	0.0015	0.50	0.10	1.09	3.09	1.22	0.20
RANGE	0.0205	7.50	0.40	27.92	86.49	21.01	0.00
ARITH. MEAN	0.0108	2.92	0.22	5.81	41.46	5.44	0.20
ARITH. STD. DEV	0.0057	2.49	0.14	7.17	27.34	5.81	0.00
GEOM. MEAN	0.0086	2.06	0.16	4.07	30.91	3.69	0.20
GEOM. STD. DEV.	2.2888	2.47	1.90	2.18	2.55	2.40	1.00
1ST QUARTILE	0.0085	1.00	0.10	2.39	21.08	2.03	0.20
2ND QUARTILE	0.0100	2.00	0.15	3.62	35.03	2.24	0.20
3RD QUARTILE	0.0125	3.00	0.30	5.49	51.32	5.92	0.20
VOL. MGT. MEAN	0.0081	2.93	0.21	3.97	35.36	3.35	0.20

CADMIUM

COPPER

ALUMINIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	13	13	13
MAXIMUM	93.36	11.86	0.24
MINIMUM	8.61	0.12	0.01
RANGE	84.75	11.74	0.23
ARITH. MEAN	44.53	2.39	0.05
ARITH. STD. DEV	27.76	3.46	0.06
GEOM. MEAN	35.45	0.84	0.04
GEOM. STD. DEV.	2.11	5.00	2.25
1ST QUARTILE	21.00	0.16	0.03
2ND QUARTILE	32.07	0.69	0.04
3RD QUARTILE	63.86	2.82	0.05
VOL. MGT. MEAN	36.46	1.40	0.06

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DUNSET/CUMULATIVE PRECIP. #20

PERIOD OF REPORT : JAN 2.85 TO DEC 31.85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
13	136.0	12	11	11	12	12	12
MAXIMUM	42.0	35.7	4.72	0.0603	0.0967	3.85	0.770
MINIMUM	94.0	21.3	4.22	0.0191	0.0525	0.80	0.260
RANGE	82.3	14.4	0.50	0.0412	0.0442	3.05	0.490
ARITH. MEAN	30.7	27.1	4.36	0.0451	0.0738	2.50	0.526
ARITH. STD. DEV	77.0	4.8	0.14	0.0122	0.0130	1.01	0.134
GEOM. MEAN	1.5	26.8	4.36	0.0432	0.0728	2.26	0.509
GEOM. STD. DEV.	57.5	1.2	1.03	1.3868	1.1910	1.65	1.313
1ST QUARTILE	74.5	24.0	4.23	0.0368	0.0663	1.57	0.435
2ND QUARTILE	94.5	26.3	4.35	0.0437	0.0694	2.72	0.505
3RD QUARTILE	*****	29.8	4.39	0.0550	0.0827	3.32	0.625
VOL. WGT. MEAN	*****	27.7	*****	0.0459	0.0755	2.52	0.505

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
11	0.490	12	11	11	12	12	12
MAXIMUM	0.010	0.220	0.950	0.075	0.095	0.090	0.595
MINIMUM	0.480	0.090	0.140	0.000	0.000	0.010	0.090
RANGE	0.246	0.130	0.810	0.075	0.095	0.080	0.505
ARITH. MEAN	0.159	0.142	0.367	0.034	0.024	0.044	0.315
ARITH. STD. DEV	0.170	0.093	0.240	0.025	0.033	0.023	0.160
GEOM. MEAN	3.123	0.136	0.309	0.037	0.027	0.037	0.271
GEOM. STD. DEV.	0.085	1.346	1.836	2.898	4.224	1.975	1.855
1ST QUARTILE	0.225	0.115	0.150	0.005	0.002	0.032	0.175
2ND QUARTILE	0.365	0.130	0.325	0.030	0.005	0.042	0.342
3RD QUARTILE	0.244	0.175	0.405	0.052	0.035	0.052	0.435
VOL. WGT. MEAN	0.244	0.138	0.355	0.034	0.019	0.044	0.304

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/CUMULATIVE PRECIP. #20

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11	10	11	11	11
MAXIMUM	0.0120	22.00	1.10	7.51	186.40	11.18	0.50
MINIMUM	0.0000	0.50	0.10	1.18	9.09	1.24	0.20
RANGE	0.0120	21.50	1.00	6.32	177.31	9.94	0.30
ARITH. MEAN	0.0041	4.14	0.45	3.96	48.51	5.62	0.26
ARITH. STD. DEV.	0.0040	6.33	0.32	2.35	54.43	3.47	0.11
GEOM. MEAN	0.0050	1.95	0.34	3.34	30.12	4.61	0.25
GEOM. STD. DEV.	3.0148	3.43	2.38	1.87	2.70	2.00	1.44
1ST QUARTILE	0.0010	0.50	0.10	2.11	11.46	2.72	0.20
2ND QUARTILE	0.0018	1.50	0.40	2.80	21.36	4.00	0.20
3RD QUARTILE	0.0070	3.50	0.60	5.69	64.01	8.27	0.30
VOL. WGT. MEAN	0.0037	3.63	0.39	3.74	44.91	5.51	0.27

CADMIUM

COPPER

ALUMINIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	11	12	11
MAXIMUM	173.30	2.98	0.17
MINIMUM	15.04	0.12	0.01
RANGE	158.26	2.85	0.16
ARITH. MEAN	50.67	0.85	0.06
ARITH. STD. DEV.	51.38	0.76	0.05
GEOM. MEAN	34.77	0.60	0.04
GEOM. STD. DEV.	2.36	2.51	2.61
1ST QUARTILE	16.07	0.33	0.02
2ND QUARTILE	24.70	0.73	0.04
3RD QUARTILE	66.94	1.05	0.08
VOL. WGT. MEAN	47.04	0.74	0.06

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EAR FALL'S/CUMULATIVE PRECIP. #35

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
:	13	12	13	13	13	12	12
MAXIMUM	100.0	24.7	6.07	0.0309	0.0566	2.80	0.860
MINIMUM	:	5.6	4.51	0.0009	0.0179	0.40	0.100
RANGE	:	19.1	1.56	0.0301	0.0387	2.40	0.760
ARITH. MEAN	:	53.0	5.22	0.0092	0.0315	0.94	0.230
ARITH. STD. DEV	:	33.4	0.44	0.0089	0.0116	0.64	0.215
GEOM. MEAN	:	41.7	5.21	0.0060	0.0298	1.65	0.184
GEOM. STD. DEV.	:	2.2	1.09	2.7725	1.4067	0.57	1.848
1ST QUARTILE	:	22.1	4.84	0.0031	0.0235	0.75	0.120
2ND QUARTILE	:	40.8	5.26	0.0052	0.0261	0.95	0.145
3RD QUARTILE	:	79.4	5.36	0.0112	0.0354	0.76	0.255
VOL. WGT. MEAN	:	*****	*****	0.0067	0.0286		0.170

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	12	12	12	12	12	12	13
MAXIMUM	0.380	1.110	0.380	0.075	0.060	0.240	0.420
MINIMUM	:	0.050	0.080	0.005	0.000	0.008	0.000
RANGE	:	0.330	0.300	0.070	0.060	0.232	0.420
ARITH. MEAN	:	0.187	0.192	0.023	0.022	0.079	0.137
ARITH. STD. DEV	:	0.111	0.308	0.022	0.018	0.071	0.125
GEOM. MEAN	:	0.156	0.122	0.015	0.025	0.052	0.114
GEOM. STD. DEV.	:	1.940	3.265	2.707	2.445	2.769	3.138
1ST QUARTILE	:	0.105	0.027	0.005	0.006	0.025	0.045
2ND QUARTILE	:	0.165	0.070	0.017	0.022	0.055	0.092
3RD QUARTILE	:	0.280	0.220	0.030	0.032	0.132	0.165
VOL. WGT. MEAN	:	0.193	0.087	0.027	0.026	0.046	0.136

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EAR FALL'S/CUMULATIVE PRECIP. #35

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	12	11	11	11	11	11	11
MAXIMUM :	0.0280	7.00	3.00	6.48	100.60	9.35	0.20
MINIMUM :	0.0015	0.50	0.10	1.47	18.33	0.98	0.20
RANGE :	0.0265	6.50	2.90	5.01	82.27	8.36	0.00
ARITH. MEAN :	0.0095	2.95	0.43	3.86	49.75	4.30	0.20
ARITH. STD. DEV :	0.0083	1.96	0.86	1.89	29.35	3.15	0.00
GEOM. MEAN :	0.0062	2.31	0.19	3.39	42.25	3.24	0.20
GEOM. STD. DEV. :	2.7995	2.22	2.94	1.75	1.83	2.27	1.00
1ST QUANTILE :	0.0022	1.00	0.10	1.63	21.66	1.50	0.20
2ND QUANTILE :	0.0085	2.50	0.10	3.40	35.82	2.37	0.20
3RD QUANTILE :	0.0140	4.00	0.30	5.36	69.24	6.68	0.20
VOL. MGT. MEAN :	0.0062	3.03	0.23	3.43	44.46	3.90	0.20

ALUMINIUM

COPPER

CADMIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	11	11	11
MAXIMUM :	81.37	2.15	3.60
MINIMUM :	15.50	0.18	0.01
RANGE :	65.87	1.98	3.59
ARITH. MEAN :	42.98	0.86	0.37
ARITH. STD. DEV :	22.32	0.66	1.07
GEOM. MEAN :	37.98	0.65	0.05
GEOM. STD. DEV. :	1.70	2.19	4.89
1ST QUANTILE :	24.26	0.36	0.02
2ND QUANTILE :	36.00	0.52	0.03
3RD QUANTILE :	55.36	1.22	0.08
VOL. MGT. MEAN :	39.28	0.69	0.30

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EXP. LAKES AREA/CUMULATIVE PRECIP. #34

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
:	13	13	13	13	13	13	13
MAXIMUM	160.0	25.3	6.21	0.0331	0.0652	2.40	0.830
MINIMUM	5.6	5.7	4.48	0.0006	0.0122	0.55	0.120
RANGE	154.4	19.6	1.73	0.0325	0.0530	1.85	0.710
ARITH. MEAN	68.6	11.8	5.26	0.0110	0.0324	1.06	0.289
ARITH. STD. DEV	51.4	5.9	0.62	0.0106	0.0158	0.48	0.199
GEOM. MEAN	46.1	10.6	5.23	0.0055	0.0291	0.98	0.245
GEOM. STD. DEV.	2.9	1.6	1.12	4.1287	1.6205	1.48	1.757
1ST QUARTILE	17.8	6.7	4.69	0.0013	0.0206	0.72	0.155
2ND QUARTILE	61.3	10.6	5.10	0.0061	0.0249	0.90	0.210
3RD QUARTILE	99.9	12.5	5.60	0.0188	0.0388	1.22	0.300
VOL. WGT. MEAN	*****	8.9	*****	0.0046	0.0237	0.96	0.203

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	12	13	13	12	12	12	13
MAXIMUM	0.370	0.390	0.870	0.065	0.045	0.280	0.710
MINIMUM	0.070	0.000	0.140	0.005	0.005	0.008	0.050
RANGE	0.300	0.390	0.730	0.060	0.040	0.272	0.660
ARITH. MEAN	0.207	0.125	0.361	0.026	0.022	0.086	0.255
ARITH. STD. DEV	0.099	0.127	0.195	0.021	0.014	0.061	0.185
GEOM. MEAN	0.184	0.099	0.320	0.019	0.018	0.051	0.194
GEOM. STD. DEV.	1.697	2.994	1.665	2.397	2.092	3.292	2.286
1ST QUARTILE	0.130	0.022	0.190	0.008	0.010	0.022	0.107
2ND QUARTILE	0.210	0.070	0.325	0.020	0.022	0.067	0.225
3RD QUARTILE	0.275	0.160	0.400	0.040	0.035	0.118	0.290
VOL. WGT. MEAN	0.240	0.055	0.374	0.032	0.026	0.050	0.274

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EXP. LAKES AREA/CUMULATIVE PRECIP. #34

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	13	11	11	11	11	11	11
MAXIMUM	0.0590	11.00	1.20	20.56	179.10	13.15	0.50
MINIMUM	0.0025	1.00	0.10	1.40	14.89	1.42	0.20
RANGE	0.0565	10.00	1.10	19.16	164.21	11.73	0.30
ARITH. MEAN	0.0187	3.82	0.43	5.80	56.61	5.08	0.25
ARITH. STD. DEV.	0.0169	3.12	0.35	5.62	46.02	4.64	0.10
GEOM. MEAN	0.0119	2.91	0.32	4.23	43.80	3.58	0.23
GEOM. STD. DEV.	2.9183	2.15	2.16	2.22	2.12	2.33	1.39
1ST QUARTILE	0.0047	1.50	0.20	1.94	17.97	1.76	0.20
2ND QUARTILE	0.0135	2.50	0.20	3.93	49.60	2.41	0.20
3RD QUARTILE	0.0230	4.50	0.55	5.37	63.52	7.79	0.20
VOL. WGT. MEAN	0.0107	4.68	0.31	3.72	59.61	3.73	0.28

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11
MAXIMUM	179.30	4.95	0.18
MINIMUM	19.49	0.13	0.02
RANGE	159.81	4.82	0.16
ARITH. MEAN	58.43	1.07	0.05
ARITH. STD. DEV.	44.28	1.39	0.04
GEOM. MEAN	48.18	0.65	0.04
GEOM. STD. DEV.	1.87	2.69	1.86
1ST QUARTILE	26.01	0.34	0.02
2ND QUARTILE	47.81	0.49	0.04
3RD QUARTILE	64.56	1.05	0.06
VOL. WGT. MEAN	62.28	0.65	0.04

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GERALDTON/CUMULATIVE PRECIP. #30

PERIOD OF REPORT : JAN 2,85 TO JAN 1,86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	12	12	12	12	12	12	12
MINIMUM	157.0	10.6	5.97	0.0282	0.0517	2.95	0.490
RANGE	15.8	6.4	4.55	0.0011	0.0230	0.55	0.100
ARITH. MEAN	141.2	12.2	1.42	0.0271	0.0287	2.40	0.390
ARITH. STD. DEV	53.9	12.1	4.99	0.0131	0.0355	1.27	0.226
GEOM. MEAN	39.3	3.9	4.98	0.0072	0.0084	0.72	0.116
GEOM. STD. DEV.	43.2	11.5	4.98	0.0102	0.0346	1.13	0.204
1ST QUARTILE	2.0	1.4	1.08	2.4686	1.2806	1.64	1.575
2ND QUARTILE	22.4	9.4	4.78	0.0089	0.0291	0.77	0.155
3RD QUARTILE	45.9	11.3	4.85	0.0140	0.0366	1.02	0.190
VOL. WGT. MEAN	71.9	15.1	5.05	0.0166	0.0400	1.45	0.240
	*****	12.3	*****	0.0115	0.0333	1.30	0.206

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	11	12	11	11	11	11	12
MINIMUM	0.600	0.630	1.180	0.070	0.140	0.250	0.655
RANGE	0.080	0.020	0.080	0.005	0.002	0.025	0.000
ARITH. MEAN	0.520	0.610	1.100	0.065	0.137	0.225	0.655
ARITH. STD. DEV	0.215	0.185	0.441	0.027	0.042	0.122	0.206
GEOM. MEAN	0.149	0.172	0.333	0.022	0.042	0.074	0.192
GEOM. STD. DEV.	0.181	0.117	0.341	0.019	0.022	0.097	0.188
1ST QUARTILE	1.804	2.969	2.169	2.631	3.849	2.194	2.453
2ND QUARTILE	0.105	0.050	0.195	0.006	0.005	0.042	0.102
3RD QUARTILE	0.165	0.175	0.290	0.022	0.027	0.120	0.147
VOL. WGT. MEAN	0.260	0.255	0.500	0.040	0.060	0.165	0.277
	0.209	0.116	0.471	0.028	0.047	0.093	0.244

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GERALDTON/CUMULATIVE PRECIP. #30

PERIOD OF REPORT : JAN 2,85 TO JAN 1,86

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.0630	7.00	1.40	16.12	129.00	12.08	0.40
MINIMUM	0.0010	1.00	0.10	1.07	14.31	1.07	0.20
RANGE	0.0620	6.00	1.30	15.05	114.69	11.01	0.20
ARITH. MEAN	0.0206	2.82	0.39	6.16	46.69	5.37	0.22
ARITH. STD. DEV.	0.0191	2.23	0.37	4.80	32.84	3.87	0.06
GEOM. MEAN	0.0123	2.11	0.30	4.56	37.72	4.13	0.21
GEOM. STD. DEV.	3.4303	2.21	2.03	2.34	2.01	2.22	1.23
1ST QUARTILE	0.0047	1.00	0.20	2.09	16.43	2.06	0.20
2ND QUARTILE	0.0135	1.50	0.25	4.65	41.62	3.81	0.20
3RD QUARTILE	0.0305	4.00	0.35	8.01	56.71	8.35	0.20
VOL. WGT. MEAN	0.0243	2.99	0.37	7.19	46.22	4.22	0.21

CADMIUM

COPPER

ALUMINIUM

	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11
MAXIMUM	164.10	6.04	1.18
MINIMUM	15.19	0.19	0.02
RANGE	148.91	5.85	1.16
ARITH. MEAN	53.32	1.55	0.19
ARITH. STD. DEV.	39.30	1.64	0.34
GEOM. MEAN	44.94	1.01	0.08
GEOM. STD. DEV.	1.79	2.73	3.37
1ST QUARTILE	32.09	0.40	0.02
2ND QUARTILE	39.98	0.99	0.08
3RD QUARTILE	56.16	1.96	0.15
VOL. WGT. MEAN	44.53	1.19	0.17

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GOLDEN LAKE/CUMULATIVE PRECIP. #17
PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
13		12	12	12	12	12	12
MAXIMUM	87.0	43.2	4.64	0.0977	0.1240	4.40	0.830
MINIMUM	26.0	14.9	4.01	0.0229	0.0468	1.35	0.250
RANGE	61.0	28.3	0.63	0.0748	0.0772	3.05	0.580
ARITH. MEAN	55.6	27.3	4.36	0.0461	0.0745	2.50	0.471
ARITH. STD. DEV.	21.1	8.8	0.19	0.0221	0.0222	1.13	0.178
GEOM. MEAN	51.9	26.0	4.35	0.0439	0.0717	2.27	0.441
GEOM. STD. DEV.	1.5	1.4	1.05	1.5505	1.3282	1.57	1.467
1ST QUARTILE	39.0	20.3	4.22	0.0299	0.0580	1.52	0.345
2ND QUARTILE	50.0	27.4	4.38	0.0412	0.0670	2.10	0.420
3RD QUARTILE	69.1	32.9	4.52	0.0612	0.0888	3.50	0.605
VOL. WGT. MEAN	*****	25.9	*****	0.0441	0.710	2.40	0.444

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
11		12	12	11	10	11	12
MAXIMUM	0.520	0.160	0.800	0.075	0.050	0.070	0.680
MINIMUM	0.110	0.020	0.170	0.005	0.000	0.005	0.060
RANGE	0.410	0.160	0.630	0.070	0.050	0.065	0.620
ARITH. MEAN	0.262	0.089	0.365	0.038	0.025	0.035	0.284
ARITH. STD. DEV.	0.133	0.058	0.223	0.021	0.020	0.022	0.210
GEOM. MEAN	0.232	0.067	0.314	0.031	0.054	0.028	0.223
GEOM. STD. DEV.	1.695	2.310	1.733	2.169	2.557	2.248	2.071
1ST QUARTILE	0.130	0.030	0.205	0.017	0.004	0.015	0.145
2ND QUARTILE	0.245	0.110	0.270	0.035	0.027	0.027	0.170
3RD QUARTILE	0.335	0.140	0.505	0.052	0.042	0.055	0.430
VOL. WGT. MEAN	0.257	0.084	0.362	0.036	0.022	0.034	0.278

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GOLDEN LAKE/CUMULATIVE PRECIP. #17

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.0140	8.00	1.40	11.23	117.70	11.83	0.20
MINIMUM	0.0005	0.50	0.10	1.34	12.74	0.59	0.20
RANGE	0.0135	7.50	1.30	9.89	104.96	11.24	0.00
ARITH. MEAN	0.0045	2.87	0.39	3.90	42.03	5.01	0.20
ARITH. STD. DEV	0.0041	2.47	0.36	2.62	31.99	4.01	0.00
GEOM. MEAN	0.0031	1.99	0.28	3.34	33.26	3.45	0.20
GEOM. STD. DEV.	2.6465	2.50	2.36	1.74	2.02	2.68	1.00
1ST QUARTILE	0.0018	1.00	0.10	2.29	17.18	1.91	0.20
2ND QUARTILE	0.0025	1.50	0.35	3.01	33.00	4.13	0.20
3RD QUARTILE	0.0060	4.50	0.45	4.54	49.84	7.66	0.20
VOL. WGT. MEAN	0.0045	2.76	0.34	3.62	41.05	4.88	0.20

ALUMINIUM

COPPER

CADMIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	11
MAXIMUM	150.50	7.59	0.69
MINIMUM	16.47	0.16	0.01
RANGE	134.03	7.43	0.68
ARITH. MEAN	45.42	1.50	0.12
ARITH. STD. DEV	37.02	2.02	0.19
GEOM. MEAN	36.88	0.85	0.07
GEOM. STD. DEV.	1.87	3.03	2.83
1ST QUARTILE	22.00	0.44	0.03
2ND QUARTILE	34.59	0.96	0.06
3RD QUARTILE	50.95	1.43	0.10
VOL. WGT. MEAN	41.44	1.30	0.11

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GONGANDA/CUMULATIVE PRECIP. #25

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
:	13	13	13	13	13	13	13
MAXIMUM	86.0	40.3	5.09	0.0741	0.1060	4.00	0.460
MINIMUM	16.4	6.6	4.13	0.0081	0.0258	0.60	0.020
RANGE	67.6	33.7	0.96	0.0660	0.0802	3.40	0.440
ARITH. MEAN	53.5	21.5	4.46	0.0421	0.0652	2.00	0.291
ARITH. STD. DEV	22.2	10.4	0.32	0.0225	0.0244	1.20	0.153
GEOM. MEAN	48.3	19.0	4.45	0.0346	0.0604	1.68	0.224
GEOM. STD. DEV.	1.7	1.7	1.07	2.1017	1.5372	1.85	2.550
1ST QUARTILE	39.0	12.8	4.21	0.0242	0.0495	1.02	0.160
2ND QUARTILE	49.5	20.1	4.34	0.0423	0.0623	1.47	0.295
3RD QUARTILE	68.3	25.9	4.52	0.0509	0.0761	2.45	0.425
VOL. WGT. MEAN	*****	19.4	*****	0.0370	0.0595	1.87	0.249

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	13	13	12	13	13	13	13
MAXIMUM	0.400	0.750	0.600	0.055	0.180	0.725	0.335
MINIMUM	0.015	0.025	0.070	0.000	0.000	0.002	0.000
RANGE	0.385	0.725	0.530	0.055	0.180	0.723	0.335
ARITH. MEAN	0.115	0.139	0.287	0.018	0.040	0.088	0.144
ARITH. STD. DEV	0.103	0.196	0.155	0.016	0.039	0.198	0.107
GEOM. MEAN	0.081	0.082	0.245	0.018	0.039	0.022	0.107
GEOM. STD. DEV.	2.511	2.672	1.878	2.854	2.421	5.026	4.559
1ST QUARTILE	0.060	0.032	0.165	0.004	0.015	0.006	0.037
2ND QUARTILE	0.085	0.080	0.290	0.015	0.025	0.012	0.137
3RD QUARTILE	0.110	0.105	0.350	0.025	0.030	0.040	0.200
VOL. WGT. MEAN	0.110	0.144	0.291	0.018	0.048	0.101	0.140

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GONGANDA/CUMULATIVE PRECIP. #25

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.0470	9.00	4.50	10.56	52.03	10.36	0.50
MINIMUM	0.0010	0.50	0.10	1.36	6.38	1.34	0.20
RANGE	0.0460	8.50	4.40	9.20	45.65	9.02	0.30
ARITH. MEAN	0.0138	2.17	0.73	4.03	23.70	5.01	0.26
ARITH. STD. DEV.	0.0155	2.31	1.23	2.96	14.84	2.60	0.11
GEOM. MEAN	0.0069	1.48	0.35	3.30	19.49	4.27	0.24
GEOM. STD. DEV.	3.8539	2.47	3.25	1.87	1.96	1.91	1.42
1ST QUARTILE	0.0020	0.50	0.10	2.29	11.17	3.25	0.20
2ND QUARTILE	0.0080	2.00	0.30	2.69	20.75	5.12	0.20
3RD QUARTILE	0.0215	2.00	0.70	5.14	34.50	6.40	0.30
VOL. WGT. MEAN	0.0138	2.11	0.67	4.04	22.41	4.76	0.27

CADMIUM

COPPER

ALUMINIUM

	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12
MAXIMUM	69.63	6.88	0.53
MINIMUM	9.38	0.15	0.01
RANGE	60.25	6.72	0.52
ARITH. MEAN	33.43	1.64	0.11
ARITH. STD. DEV.	19.36	2.09	0.14
GEOM. MEAN	28.79	0.83	0.05
GEOM. STD. DEV.	1.78	3.42	3.65
1ST QUARTILE	19.82	0.32	0.02
2ND QUARTILE	29.31	0.80	0.09
3RD QUARTILE	42.79	2.00	0.12
VOL. WGT. MEAN	29.67	1.16	0.11

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HURON PARK/CUMULATIVE PRECIP. #06

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
:	10	10	10	10	10	10	10
MAXIMUM	135.0	51.0	4.90	0.0832	0.1110	8.25	1.330
MINIMUM	20.4	20.1	4.08	0.0126	0.0368	1.70	0.410
RANGE	114.6	30.9	0.82	0.0706	0.0742	6.55	0.920
ARITH. MEAN	53.4	37.1	4.39	0.0479	0.0786	4.57	0.803
ARITH. STD. DEV.	40.2	11.3	0.28	0.0236	0.0275	2.16	0.303
GEOM. MEAN	42.3	35.4	4.38	0.0411	0.0737	4.10	0.751
GEOM. STD. DEV.	2.0	1.4	1.06	1.8987	1.4850	1.66	1.480
1ST QUARTILE	21.5	25.3	4.17	0.0243	0.0518	2.60	0.505
2ND QUARTILE	36.5	41.4	4.29	0.0518	0.0779	4.52	0.765
3RD QUARTILE	67.5	44.3	4.46	0.0624	0.1025	5.48	0.935
VOL. WGT. MEAN	*****	36.5	*****	0.0543	0.0840	4.00	0.712

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	10	10	10	10	10	10	10
MAXIMUM	2.080	0.450	1.960	0.315	0.080	0.130	1.950
MINIMUM	0.200	0.080	0.380	0.035	0.008	0.030	0.250
RANGE	1.880	0.370	1.580	0.280	0.072	0.100	1.700
ARITH. MEAN	0.766	0.237	0.879	0.124	0.041	0.068	0.777
ARITH. STD. DEV.	0.578	0.108	0.499	0.089	0.028	0.033	0.530
GEOM. MEAN	0.597	0.214	0.771	0.097	0.032	0.062	0.636
GEOM. STD. DEV.	2.128	1.652	1.699	2.138	2.313	1.596	1.951
1ST QUARTILE	0.275	0.150	0.470	0.040	0.015	0.042	0.315
2ND QUARTILE	0.600	0.220	0.725	0.100	0.032	0.060	0.640
3RD QUARTILE	1.015	0.285	1.030	0.173	0.062	0.070	0.990
VOL. WGT. MEAN	0.553	0.208	0.716	0.090	0.032	0.058	0.598

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

806

STATION NAME : HURON PARK/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	10	10	10	10	8	10	10
MAXIMUM	0.0510	15.00	2.60	35.56	302.60	16.66	1.50
MINIMUM	0.0015	1.00	0.20	4.15	23.82	4.85	0.20
RANGE	0.0495	14.00	2.40	31.41	278.78	11.81	1.30
ARITH. MEAN	0.0151	7.10	0.86	14.21	100.26	9.18	0.65
ARITH. STD. DEV.	0.0144	4.33	0.78	9.30	88.02	3.78	0.49
GEOM. MEAN	0.0096	5.60	0.62	11.96	77.24	8.54	0.49
GEOM. STD. DEV.	3.0818	2.28	2.28	1.85	2.11	1.49	2.30
1ST QUARTILE	0.0042	3.50	0.35	8.29	56.40	6.22	0.20
2ND QUARTILE	0.0120	6.50	0.45	10.09	64.46	7.65	0.55
3RD QUARTILE	0.0180	9.00	1.05	17.76	116.95	10.83	0.85
VOL. WGT. MEAN	0.0162	6.87	1.16	14.99	77.07	8.67	0.83

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	7	10	10
MAXIMUM	121.70	2.91	0.30
MINIMUM	23.35	0.13	0.04
RANGE	98.35	2.78	0.26
ARITH. MEAN	77.30	1.70	0.12
ARITH. STD. DEV.	31.98	0.86	0.08
GEOM. MEAN	69.71	1.34	0.10
GEOM. STD. DEV.	1.72	2.51	1.98
1ST QUARTILE	42.00	0.98	0.05
2ND QUARTILE	71.86	1.68	0.10
3RD QUARTILE	95.83	2.14	0.15
VOL. WGT. MEAN	66.05	1.56	0.12

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : KILLARNEY/CUMULATIVE PRECIP. #23

PERIOD OF REPORT : JAN 2,85 TO DEC 30,85

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# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
:	MM	UMHO/CN	LAB	LAB	GRAM	MG/L	AS N
MAXIMUM	11	11	11	11	11	11	11
MINIMUM	110.0	56.8	4.45	0.1000	0.1360	5.05	0.990
RANGE	15.0	22.1	4.00	0.0355	0.0605	1.05	0.310
ARITH. MEAN	95.0	34.7	0.45	0.0645	0.0755	4.00	0.600
ARITH. STD. DEV	64.2	33.4	4.29	0.0539	0.0824	2.98	0.577
GEOM. MEAN	36.7	11.3	0.13	0.0186	0.0206	1.20	0.161
GEOM. STD. DEV.	52.5	31.9	4.29	0.0515	0.0804	2.72	0.559
1ST QUARTILE	2.1	1.4	1.03	1.3570	1.2454	1.61	1.308
2ND QUARTILE	24.1	25.2	4.18	0.0394	0.0687	1.63	0.515
3RD QUARTILE	55.5	27.3	4.28	0.0458	0.0752	3.02	0.545
VOL. WGT. MEAN	98.0	35.8	4.38	0.0596	0.0877	3.65	0.595
	*****	32.1	*****	0.0560	0.0848	2.93	0.561

# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
:	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
MAXIMUM	11	11	11	11	11	11	11
MINIMUM	0.700	0.310	0.860	0.135	0.160	0.170	0.600
RANGE	0.015	0.030	0.160	0.005	0.010	0.020	0.005
ARITH. MEAN	0.685	0.280	0.700	0.130	0.150	0.150	0.515
ARITH. STD. DEV	0.269	0.161	0.476	0.049	0.045	0.046	0.353
GEOM. MEAN	0.219	0.082	0.225	0.039	0.032	0.046	0.179
GEOM. STD. DEV.	0.170	0.138	0.420	0.034	0.032	0.057	0.299
1ST QUARTILE	3.214	1.917	1.744	2.747	2.324	0.032	1.888
2ND QUARTILE	0.060	0.090	0.215	0.016	0.015	0.032	0.132
3RD QUARTILE	0.195	0.145	0.475	0.032	0.027	0.052	0.340
VOL. WGT. MEAN	0.420	0.195	0.615	0.065	0.052	0.082	0.507
	0.206	0.144	0.450	0.039	0.032	0.055	0.344

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

#23

STATION NAME : KILLARNEY/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2,85 TO DEC 30,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.0310	24.00	2.70	16.56	270.70	11.89	1.00
MINIMUM	0.0010	1.00	0.10	4.33	15.34	3.21	0.20
RANGE	0.0300	23.00	2.60	12.23	255.36	8.68	0.80
ARITH. MEAN	0.0100	4.91	0.64	8.24	66.60	7.63	0.34
ARITH. STD. DEV.	0.0108	6.80	0.72	3.64	75.30	2.93	0.25
GEOM. MEAN	0.0055	2.93	0.44	7.57	45.20	7.04	0.29
GEOM. STD. DEV.	3.2622	2.57	2.35	1.54	2.35	1.55	1.73
1ST QUANTILE	0.0022	1.50	0.25	4.57	22.02	4.50	0.20
2ND QUANTILE	0.0027	2.00	0.40	7.93	37.78	8.27	0.20
3RD QUANTILE	0.0160	3.50	0.65	9.62	58.23	9.51	0.40
VOL. WGT. MEAN	0.0066	3.03	0.47	8.24	41.26	7.77	0.27

CADMIUM

COPPER

ALUMINUM

	UG/L	UG/L	UG/L
# OF SAMPLES	11	11	11
MAXIMUM	248.00	15.29	0.50
MINIMUM	9.89	0.27	0.07
RANGE	238.11	15.01	0.43
ARITH. MEAN	60.88	2.65	0.16
ARITH. STD. DEV.	68.35	4.30	0.14
GEOM. MEAN	41.82	1.33	0.13
GEOM. STD. DEV.	2.34	3.09	1.94
1ST QUANTILE	23.83	0.44	0.08
2ND QUANTILE	37.60	1.07	0.09
3RD QUANTILE	47.13	2.22	0.20
VOL. WGT. MEAN	40.96	1.80	0.13

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/CUMULATIVE PRECIP. #33
PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
MAXIMUM	MM	UMHO/CM	LAB	LAB	GRAM	MG/L	AS N
MINIMUM	11	10	11	11	11	10	10
RANGE	144.8	18.9	6.23	0.0219	0.0494	1.70	0.460
ARITH. MEAN	12.0	6.5	4.66	0.0006	0.0186	0.70	0.150
ARITH. STD. DEV	132.8	12.4	5.13	0.0213	0.0308	1.00	0.310
GEOM. MEAN	58.9	11.5	0.53	0.0110	0.0353	1.08	0.261
GEOM. STD. DEV.	42.5	3.7	5.11	0.0069	0.0096	0.37	0.086
1ST QUARTILE	45.7	11.0	5.11	0.0073	0.0339	1.03	0.250
2ND QUARTILE	2.2	1.4	1.10	3.3941	1.3582	1.39	1.365
3RD QUARTILE	22.4	9.5	4.74	0.0041	0.0252	0.75	0.200
VOL. WGT. MEAN	38.3	10.1	4.93	0.0098	0.0360	0.97	0.245
	83.4	12.4	5.12	0.0154	0.0417	1.27	0.280
	*****	10.8	*****	0.0081	0.0304	1.15	0.243

# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
MAXIMUM	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
MINIMUM	10	10	9	10	10	10	10
RANGE	0.590	1.030	0.730	0.105	0.070	0.970	0.425
ARITH. MEAN	0.060	0.000	0.180	0.015	0.005	0.025	0.002
ARITH. STD. DEV	0.530	1.030	0.550	0.090	0.065	0.945	0.423
GEOM. MEAN	0.276	0.190	0.392	0.048	0.044	0.167	0.211
GEOM. STD. DEV.	0.159	0.309	0.182	0.030	0.018	0.290	0.145
1ST QUARTILE	0.233	0.125	0.359	0.040	0.038	0.077	0.122
2ND QUARTILE	1.921	3.479	1.560	1.911	2.109	3.182	4.730
3RD QUARTILE	0.165	0.017	0.275	0.022	0.035	0.027	0.052
VOL. WGT. MEAN	0.210	0.080	0.310	0.040	0.047	0.072	0.210
	0.370	0.150	0.425	0.062	0.050	0.097	0.300
	0.316	0.114	0.391	0.055	0.048	0.098	0.240

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/CUMULATIVE PRECIP. 833

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	9	9	9	9	9	9	9
MAXIMUM	0.2430	15.00	3.80	10.27	260.90	14.40	0.80
MINIMUM	0.0005	1.00	0.10	2.26	5.80	0.76	0.20
RANGE	0.2425	14.00	3.70	8.01	255.10	13.64	0.60
ARITH. MEAN	0.0378	5.56	0.79	4.40	81.00	4.22	0.32
ARITH. STD. DEV	0.0782	4.39	1.25	2.46	77.56	4.17	0.21
GEOM. MEAN	0.0076	4.23	0.30	3.95	51.69	2.92	0.28
GEOM. STD. DEV.	7.1144	2.23	4.04	1.60	3.04	2.50	1.70
1ST QUARTILE	0.0015	3.00	0.10	2.67	27.82	1.25	0.20
2ND QUARTILE	0.0052	3.00	0.15	3.66	53.14	2.95	0.20
3RD QUARTILE	0.0200	6.50	0.50	4.38	90.21	4.52	0.30
VOL. WGT. MEAN	0.0190	6.87	0.44	3.75	82.57	4.62	0.28

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	9	9	9
MAXIMUM	249.20	1.85	0.16
MINIMUM	27.24	0.13	0.01
RANGE	221.96	1.72	0.15
ARITH. MEAN	85.79	1.05	0.06
ARITH. STD. DEV	69.27	0.55	0.05
GEOM. MEAN	67.60	0.86	0.04
GEOM. STD. DEV.	2.04	2.21	2.98
1ST QUARTILE	34.74	0.70	0.01
2ND QUARTILE	65.13	0.84	0.03
3RD QUARTILE	83.74	1.35	0.08
VOL. WGT. MEAN	88.86	0.99	0.04

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MATTAWA/CUMULATIVE PRECIP. #22

PERIOD OF REPORT : JAN 2,85 TO DEC 3,85

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	PRECIP.		CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
	MM	MM	UMHO/CM	LAB	LAB	GRAM	MG/L	AS N
# OF SAMPLES	8		7	7	7	8	8	8
MAXIMUM	104.8		43.3	4.84	0.0661	0.1040	4.50	0.810
MINIMUM	24.0		15.0	4.18	0.0145	0.0290	0.95	0.060
RANGE	80.8		28.3	0.66	0.0516	0.0750	3.55	0.750
ARITH. MEAN	61.1		28.4	4.35	0.0490	0.0702	2.58	0.437
ARITH. STD. DEV.	24.0		9.5	0.23	0.0185	0.0249	1.13	0.257
GEOM. MEAN	56.7		27.0	4.35	0.0445	0.0656	2.35	0.343
GEOM. STD. DEV.	1.5		1.4	1.05	1.7111	1.5217	1.63	2.376
1ST QUARTILE	49.6		17.3	4.18	0.0262	0.0514	1.80	0.215
2ND QUARTILE	57.0		27.6	4.23	0.0499	0.0762	2.55	0.475
3RD QUARTILE	73.6		33.0	4.39	0.0624	0.0866	3.25	0.625
VOL. WGT. MEAN	*****		30.2	*****	0.0508	0.0745	2.89	0.473
	CALCIUM		CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
	MG/L	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
# OF SAMPLES	8		8	8	8	8	8	8
MAXIMUM	0.650		0.220	1.020	0.245	0.185	0.140	0.675
MINIMUM	0.050		0.025	0.150	0.002	0.002	0.010	0.000
RANGE	0.600		0.195	0.870	0.243	0.183	0.130	0.675
ARITH. MEAN	0.272		0.148	0.434	0.062	0.067	0.052	0.314
ARITH. STD. DEV.	0.201		0.068	0.336	0.076	0.073	0.044	0.263
GEOM. MEAN	0.210		0.125	0.337	0.035	0.033	0.036	0.334
GEOM. STD. DEV.	2.274		2.078	2.114	3.641	4.368	2.442	2.025
1ST QUARTILE	0.140		0.100	0.185	0.027	0.016	0.020	0.135
2ND QUARTILE	0.215		0.170	0.250	0.037	0.042	0.037	0.190
3RD QUARTILE	0.385		0.200	0.715	0.060	0.117	0.077	0.595
VOL. WGT. MEAN	0.292		0.157	0.494	0.062	0.068	0.060	0.366

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MATTAWA/CUMULATIVE PRECIP. #22

PERIOD OF REPORT : JAN 2,85 TO DEC 3,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	8	8	8	8	8	8	8
MAXIMUM	0.0750	22.00	3.20	20.22	187.70	13.28	0.20
MINIMUM	0.0015	2.00	0.10	3.57	12.51	0.78	0.20
RANGE	0.0735	20.00	3.10	16.65	175.19	12.50	0.00
ARITH. MEAN	0.0162	6.12	1.24	9.30	59.65	7.02	0.20
ARITH. STD. DEV.	0.0247	6.60	1.06	6.92	54.79	4.69	0.00
GEOM. MEAN	0.0072	4.44	0.81	7.42	44.87	4.96	0.20
GEOM. STD. DEV.	3.7898	2.17	3.08	2.01	2.20	2.85	1.00
1ST QUANTILE	0.0022	2.50	0.50	4.28	30.20	2.55	0.20
2ND QUANTILE	0.0065	4.00	0.90	5.65	44.49	7.84	0.20
3RD QUANTILE	0.0180	6.00	1.90	15.36	63.81	10.67	0.20
VOL. WGT. MEAN	0.0169	6.03	1.08	10.60	68.11	7.08	0.20

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	8	8	8
MAXIMUM	130.80	5.91	0.16
MINIMUM	17.02	0.60	0.02
RANGE	113.78	5.31	0.14
ARITH. MEAN	48.91	1.88	0.08
ARITH. STD. DEV.	35.82	1.72	0.04
GEOM. MEAN	40.55	1.46	0.07
GEOM. STD. DEV.	1.89	2.03	1.92
1ST QUANTILE	27.35	0.90	0.05
2ND QUANTILE	42.08	1.41	0.08
3RD QUANTILE	52.28	1.97	0.10
VOL. WGT. MEAN	55.80	2.05	0.09

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MCKELLAR/CUMULATIVE PRECIP. #21

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	126.9	56.4	4.78	0.0977	0.1430	4.40	1.2300
MINIMUM	42.0	11.6	4.01	0.0166	0.0412	0.80	0.2300
RANGE	84.9	44.8	0.77	0.0811	0.1018	3.60	1.0000
ARITH. MEAN	83.2	30.5	4.34	0.0503	0.0790	2.72	0.6146
ARITH. STD. DEV.	27.9	12.1	0.21	0.0223	0.0274	1.43	0.2700
GEOM. MEAN	78.9	28.3	4.33	0.0458	0.0754	2.29	0.5685
GEOM. STD. DEV.	1.4	1.5	1.05	1.6152	1.3817	1.96	1.5600
1ST QUANTILE	62.1	24.1	4.23	0.0385	0.0688	1.13	0.4755
2ND QUANTILE	73.4	27.9	4.31	0.0452	0.0724	2.68	0.5800
3RD QUANTILE	96.8	33.8	4.38	0.0525	0.0766	3.68	0.6400
VOL. WGT. MEAN	*****	29.2	*****	0.0487	0.0772	2.60	0.5766

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	0.620	0.900	0.870	0.110	0.080	0.635	0.7255
MINIMUM	0.000	0.080	0.190	0.002	0.000	0.008	0.1300
RANGE	0.620	0.820	0.680	0.108	0.080	0.627	0.5955
ARITH. MEAN	0.266	0.234	0.490	0.044	0.031	0.142	0.3911
ARITH. STD. DEV.	0.219	0.254	0.271	0.039	0.027	0.191	0.2299
GEOM. MEAN	0.258	0.175	0.417	0.022	0.035	0.079	0.3229
GEOM. STD. DEV.	2.451	2.043	1.873	4.612	3.188	3.311	2.0229
1ST QUANTILE	0.065	0.095	0.200	0.004	0.005	0.050	0.1355
2ND QUANTILE	0.205	0.180	0.410	0.035	0.025	0.072	0.3779
3RD QUANTILE	0.380	0.190	0.660	0.060	0.040	0.117	0.4829
VOL. WGT. MEAN	0.240	0.230	0.459	0.040	0.031	0.137	0.3666

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MCKELLAR/CUMULATIVE PRECIP. #21

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	9	9	9	8	8	8	9
MAXIMUM	0.0250	10.00	0.90	17.58	110.90	11.78	0.50
MINIMUM	0.0000	0.50	0.10	3.16	8.16	0.74	0.20
RANGE	0.0250	9.50	0.80	14.42	102.74	11.04	0.30
ARITH. MEAN	0.0078	3.72	0.44	7.72	45.52	7.09	0.23
ARITH. STD. DEV.	0.0075	3.43	0.31	5.21	36.32	3.54	0.10
GEOM. MEAN	0.0108	2.20	0.34	6.48	31.34	5.68	0.22
GEOM. STD. DEV.	3.0060	3.35	2.32	1.85	2.73	2.42	1.36
1ST QUARTILE	0.0015	0.50	0.15	3.94	10.95	5.01	0.20
2ND QUARTILE	0.0070	2.50	0.35	6.29	42.46	7.31	0.20
3RD QUARTILE	0.0090	4.50	0.55	10.29	69.13	9.78	0.20
VOL. WGT. MEAN	0.0068	3.33	0.44	6.85	41.85	6.57	0.22

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	8	8	9
MAXIMUM	104.90	6.13	0.36
MINIMUM	12.85	0.26	0.01
RANGE	92.05	5.86	0.35
ARITH. MEAN	44.11	2.27	0.12
ARITH. STD. DEV.	33.57	2.23	0.11
GEOM. MEAN	33.09	1.43	0.09
GEOM. STD. DEV.	2.30	2.98	2.73
1ST QUARTILE	14.89	0.89	0.06
2ND QUARTILE	39.13	1.38	0.07
3RD QUARTILE	63.54	3.63	0.12
VOL. WGT. MEAN	41.20	2.05	0.12

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MERLIN/CUMULATIVE PRECIP. 802

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
13	13	12	12	12	12	13	13
MAXIMUM	153.0	46.6	4.91	0.0891	0.1240	5.95	1.190
MINIMUM	10.9	23.9	4.05	0.0123	0.0423	2.60	0.340
RANGE	142.1	22.9	0.86	0.0768	0.0817	3.35	0.850
ARITH. MEAN	70.3	36.4	4.30	0.0552	0.0839	4.08	0.652
ARITH. STD. DEV.	51.3	7.2	0.23	0.0199	0.0211	1.20	0.258
GEOM. MEAN	59.0	35.7	4.29	0.0502	0.0811	3.92	0.609
GEOM. STD. DEV.	2.4	1.2	1.05	1.8902	1.3285	1.36	1.470
1ST QUARTILE	30.5	29.7	4.20	0.0490	0.0730	2.77	0.440
2ND QUARTILE	71.5	38.1	4.22	0.0596	0.0891	4.05	0.615
3RD QUARTILE	104.5	41.4	4.31	0.0631	0.0919	4.82	0.745
VOL. WGT. MEAN	*****	34.9	*****	0.0596	0.0876	3.58	0.539

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
11	11	12	12	11	11	11	13
MAXIMUM	1.840	5.050	0.920	0.350	0.225	3.350	0.745
MINIMUM	0.100	0.080	0.200	0.020	0.008	0.020	0.170
RANGE	1.740	4.970	0.720	0.330	0.217	3.330	0.575
ARITH. MEAN	0.638	0.604	0.527	0.117	0.066	0.360	0.408
ARITH. STD. DEV.	0.497	1.404	0.219	0.100	0.066	0.992	0.191
GEOM. MEAN	0.475	0.236	0.480	0.084	0.039	0.075	0.364
GEOM. STD. DEV.	2.364	2.919	1.604	2.376	3.302	4.013	1.675
1ST QUARTILE	0.195	0.145	0.330	0.035	0.008	0.030	0.227
2ND QUARTILE	0.470	0.170	0.530	0.082	0.055	0.050	0.400
3RD QUARTILE	0.800	0.290	0.705	0.145	0.070	0.108	0.480
VOL. WGT. MEAN	0.416	0.308	0.441	0.072	0.042	0.148	0.356

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MERLIN/CUMULATIVE PRECIP. #02

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12	13	11	13	13
MAXIMUM	0.0240	11.00	2.40	35.27	356.00	21.45	0.40
MINIMUM	0.0005	0.50	0.10	1.45	9.82	1.38	0.20
RANGE	0.0235	10.50	2.30	33.82	346.18	20.07	0.20
ARITH. MEAN	0.0108	4.37	0.62	10.34	94.72	6.96	0.26
ARITH. STD. DEV.	0.0071	3.37	0.67	9.38	109.97	5.10	0.10
GEOM. MEAN	0.0075	3.05	0.40	7.49	52.79	5.59	0.25
GEOM. STD. DEV.	2.4992	2.66	2.70	2.31	3.13	2.02	1.40
1ST QUANTILE	0.0050	1.50	0.20	4.51	20.23	3.45	0.20
2ND QUANTILE	0.0110	4.00	0.35	6.67	37.86	5.93	0.20
3RD QUANTILE	0.0155	6.00	0.95	9.75	128.03	8.18	0.30
VOL. WGT. MEAN	0.0082	3.01	0.64	6.11	51.24	5.56	0.24

CADMIUM

COPPER

ALUMINIUM

	UG/L	UG/L	UG/L
# OF SAMPLES	11	13	13
MAXIMUM	341.80	9.59	0.43
MINIMUM	9.36	0.14	0.01
RANGE	332.44	9.45	0.42
ARITH. MEAN	91.00	1.68	0.11
ARITH. STD. DEV.	104.26	2.48	0.11
GEOM. MEAN	54.57	0.92	0.08
GEOM. STD. DEV.	2.85	2.97	2.45
1ST QUANTILE	27.52	0.41	0.05
2ND QUANTILE	36.87	0.80	0.06
3RD QUANTILE	102.21	1.64	0.10
VOL. WGT. MEAN	51.69	0.83	0.08

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOONBEAM/CUMULATIVE PRECIP. 827

PERIOD OF REPORT : JAN 3,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	12	12	10	10	10	12	12
MINIMUM	72.0	59.1	5.20	0.0832	0.1020	4.55	0.570
RANGE	12.0	10.4	4.08	0.0063	0.0260	1.00	0.140
ARITH. MEAN	60.0	48.7	1.12	0.0769	0.0760	3.55	0.430
GEOM. MEAN	44.5	21.9	4.61	0.0303	0.0517	2.11	0.322
1ST QUANTILE	19.3	14.1	0.31	0.0209	0.0204	1.18	0.156
2ND QUANTILE	39.8	19.3	4.60	0.0247	0.0486	1.87	0.288
3RD QUANTILE	1.7	1.6	1.07	2.0224	1.4384	1.63	1.638
VOL. WGT. MEAN	33.3	15.2	4.47	0.0153	0.0379	1.32	0.200
	40.5	17.4	4.53	0.0295	0.0512	1.63	0.250
	62.0	18.9	4.64	0.0324	0.0546	2.63	0.460
	*****	19.3	*****	0.0289	0.0508	1.96	0.299

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	10	12	12	11	11	11	12
MINIMUM	0.590	0.690	0.710	0.175	0.070	0.270	0.510
RANGE	0.050	0.090	0.090	0.005	0.002	0.002	0.020
ARITH. MEAN	0.540	0.690	0.620	0.170	0.067	0.267	0.490
GEOM. MEAN	0.239	0.164	0.328	0.054	0.026	0.077	0.181
1ST QUANTILE	0.172	0.209	0.223	0.046	0.021	0.080	0.151
2ND QUANTILE	0.182	0.109	0.264	0.039	0.017	0.041	0.130
3RD QUANTILE	2.275	3.619	2.013	2.477	3.023	3.884	2.478
VOL. WGT. MEAN	0.080	0.025	0.145	0.022	0.005	0.015	0.062
	0.215	0.100	0.250	0.065	0.022	0.037	0.130
	0.340	0.205	0.525	0.050	0.037	0.108	0.235
	0.225	0.120	0.292	0.050	0.026	0.074	0.173

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOONBEAM/CUMULATIVE PRECIP. #27

PERIOD OF REPORT : JAN 3,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	11	11	11	10	11	11
MAXIMUM	0.0440	9.00	3.80	9.09	81.86	15.44	0.50
MINIMUM	0.0005	0.50	0.10	1.12	6.31	0.94	0.00
RANGE	0.0435	8.50	3.70	7.98	75.55	14.50	0.50
ARITH. MEAN	0.0099	4.05	0.74	4.69	33.56	7.55	0.26
ARITH. STD. DEV	0.0115	2.72	1.08	3.12	21.12	4.73	0.14
GEOM. MEAN	0.0058	2.98	0.36	3.67	27.31	5.53	0.30
GEOM. STD. DEV.	3.2877	2.54	3.44	2.15	2.09	2.66	1.48
1ST QUANTILE	0.0038	1.00	0.10	1.69	16.94	1.77	0.20
2ND QUANTILE	0.0080	3.50	0.35	3.01	30.80	7.57	0.20
3RD QUANTILE	0.0105	6.00	0.75	7.40	40.47	10.07	0.40
VOL. WGT. MEAN	0.0082	3.77	0.73	4.39	33.06	7.20	0.26

CADMIUM

COPPER

ALUMINUM

	UG/L	UG/L	UG/L
# OF SAMPLES	11	10	10
MAXIMUM	162.90	3.95	0.21
MINIMUM	12.31	0.24	0.03
RANGE	150.59	3.71	0.18
ARITH. MEAN	50.48	1.47	0.09
ARITH. STD. DEV	44.21	1.23	0.06
GEOM. MEAN	37.21	1.01	0.08
GEOM. STD. DEV.	2.25	2.63	1.97
1ST QUANTILE	17.03	0.34	0.04
2ND QUANTILE	32.50	1.29	0.06
3RD QUANTILE	69.94	1.84	0.12
VOL. WGT. MEAN	46.48	1.36	0.08

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

839

STATION NAME : MOOSONEE/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 1.85 TO DEC 29.85

PAGE : 1

	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MAXIMUM	29.7	8.5	5.26	0.0055	0.0255	0.60	0.200	0.270	0.260	0.110	0.045	0.025	0.185	0.002
MINIMUM	29.7	8.5	5.26	0.0055	0.0255	0.60	0.200	0.270	0.260	0.110	0.045	0.025	0.185	0.002
RANGE	0.0	0.0	0.00	0.0000	0.0000	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ARITH. MEAN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
ARITH. STD. DEV.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1ST QUANTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2ND QUANTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
3RD QUANTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
VOL. WGT. MEAN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
# OF SAMPLES	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MAXIMUM	0.270	0.260	0.110	0.045	0.025	0.185	0.002	0.270	0.260	0.110	0.045	0.025	0.185	0.002
MINIMUM	0.270	0.260	0.110	0.045	0.025	0.185	0.002	0.270	0.260	0.110	0.045	0.025	0.185	0.002
RANGE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ARITH. MEAN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
ARITH. STD. DEV.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1ST QUANTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2ND QUANTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
3RD QUANTILE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
VOL. WGT. MEAN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOOSEE/CUMULATIVE PRECIP. #39

PERIOD OF REPORT : DEC 1,85 TO DEC 29,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	1	1	1	0	1	1	1
MAXIMUM :	0.0100	1.00	0.50	*****	58.45	8.15	0.20
MINIMUM :	0.0100	1.00	0.50	*****	58.45	8.15	0.20
RANGE :	0.0000	0.00	0.00	*****	0.00	0.00	0.00
ARITH. MEAN :	*****	*****	*****	*****	*****	*****	*****
ARITH. STD. DEV :	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN :	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV. :	*****	*****	*****	*****	*****	*****	*****
1ST QUANTILE :	*****	*****	*****	*****	*****	*****	*****
2ND QUANTILE :	*****	*****	*****	*****	*****	*****	*****
3RD QUANTILE :	*****	*****	*****	*****	*****	*****	*****
VOL. MOT. MEAN :	*****	*****	*****	*****	*****	*****	*****

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	1	1	1
MAXIMUM :	67.72	2.93	0.76
MINIMUM :	67.72	2.93	0.76
RANGE :	0.00	0.00	0.00
ARITH. MEAN :	*****	*****	*****
ARITH. STD. DEV :	*****	*****	*****
GEOM. MEAN :	*****	*****	*****
GEOM. STD. DEV. :	*****	*****	*****
1ST QUANTILE :	*****	*****	*****
2ND QUANTILE :	*****	*****	*****
3RD QUANTILE :	*****	*****	*****
VOL. MOT. MEAN :	*****	*****	*****

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : OTTER ISLAND/CUMULATIVE PRECIP. #38

PERIOD OF REPORT : APR 23,85 TO NOV 5,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	166.9	28.9	4.66	0.0501	0.0863	3.50	0.480
MINIMUM	41.0	14.3	4.30	0.0219	0.0419	1.40	0.210
RANGE	125.9	14.6	0.36	0.0282	0.0444	2.10	0.270
ARITH. MEAN	93.0	22.2	4.48	0.0345	0.0597	2.50	0.341
ARITH. STD. DEV.	48.3	5.1	0.13	0.0099	0.0145	0.73	0.101
GEOM. MEAN	82.6	21.7	4.48	0.0332	0.0583	2.40	0.329
GEOM. STD. DEV.	1.7	1.3	1.03	1.3443	1.2680	1.37	1.346
1ST QUARTILE	47.5	15.9	4.35	0.0229	0.0437	1.72	0.245
2ND QUARTILE	68.0	21.5	4.43	0.0337	0.0593	2.22	0.295
3RD QUARTILE	126.6	25.8	4.57	0.0389	0.0628	3.05	0.415
VOL. MGT. MEAN	*****	21.9	*****	0.0338	0.0589	2.36	0.327

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	0.450	0.100	0.670	0.100	0.090	0.070	0.580
MINIMUM	0.060	0.000	0.210	0.008	0.008	0.008	0.185
RANGE	0.390	0.100	0.460	0.092	0.082	0.062	0.395
ARITH. MEAN	0.243	0.049	0.404	0.042	0.031	0.033	0.367
ARITH. STD. DEV.	0.127	0.038	0.166	0.031	0.029	0.023	0.149
GEOM. MEAN	0.209	0.074	0.375	0.033	0.022	0.025	0.340
GEOM. STD. DEV.	1.910	2.095	1.531	2.266	2.458	2.325	1.550
1ST QUARTILE	0.120	0.012	0.235	0.016	0.008	0.009	0.207
2ND QUARTILE	0.195	0.027	0.350	0.030	0.025	0.025	0.327
3RD QUARTILE	0.310	0.080	0.495	0.052	0.035	0.047	0.460
VOL. MGT. MEAN	0.219	0.056	0.363	0.035	0.023	0.034	0.322

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : OTTER ISLAND/CUMULATIVE PRECIP. #38

PERIOD OF REPORT : APR 23,85 TO NOV 5,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	7	7	7	7	7	7	7
MAXIMUM	0.0100	8.00	1.00	15.82	107.90	7.18	0.50
MINIMUM	0.0010	0.50	0.10	2.19	8.02	1.16	0.20
RANGE	0.0090	7.50	0.90	13.63	99.88	6.02	0.30
ARITH. MEAN	0.0044	3.79	0.30	7.27	41.64	4.51	0.24
ARITH. STD. DEV.	0.0036	2.71	0.33	5.14	35.20	2.58	0.11
GEOM. MEAN	0.0031	2.85	0.21	5.69	29.05	3.62	0.23
GEOM. STD. DEV.	2.4662	2.50	2.38	2.19	2.67	2.23	1.41
1ST QUARTILE	0.0012	1.25	0.10	2.26	8.11	1.18	0.20
2ND QUARTILE	0.0020	3.00	0.15	4.88	31.94	4.39	0.20
3RD QUARTILE	0.0070	5.00	0.30	10.39	51.74	6.62	0.20
VOL. WGT. MEAN	0.0048	3.18	0.33	6.24	33.90	4.13	0.25

ALUMINIUM

COPPER

CADMIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	7	7	7
MAXIMUM	146.10	2.94	0.46
MINIMUM	11.62	0.16	0.02
RANGE	134.48	2.78	0.44
ARITH. MEAN	50.24	1.01	0.13
ARITH. STD. DEV.	45.49	1.17	0.16
GEOM. MEAN	36.37	0.55	0.07
GEOM. STD. DEV.	2.42	3.29	3.17
1ST QUARTILE	11.96	0.16	0.02
2ND QUARTILE	39.42	0.34	0.05
3RD QUARTILE	51.41	1.55	0.14
VOL. WGT. MEAN	43.83	0.92	0.13

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PALMERSTON/CUMULATIVE PRECIP. #08

PERIOD OF REPORT : DEC 31,84 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
13	225.0	54.6	12	12	12	12	12
MAXIMUM	225.0	54.6	5.77	0.0813	0.1250	6.40	1.450
MINIMUM	15.0	10.0	4.09	0.0017	0.0243	1.10	0.280
RANGE	210.0	44.6	1.68	0.0796	0.1007	5.30	1.170
ARITH. MEAN	79.5	28.4	4.55	0.0383	0.0662	3.30	0.572
ARITH. STD. DEV	52.5	12.4	0.44	0.0233	0.0291	1.41	0.311
GEOM. MEAN	65.2	26.1	4.53	0.0285	0.0605	3.02	0.518
GEOM. STD. DEV.	2.0	1.6	1.10	2.7781	1.5682	1.58	1.545
1ST QUANTILE	48.5	21.2	4.25	0.0237	0.0497	2.45	0.400
2ND QUANTILE	69.0	25.6	4.48	0.0330	0.0582	3.05	0.485
3RD QUANTILE	92.5	31.0	4.63	0.0562	0.0791	4.25	0.615
VOL. WGT. MEAN	*****	26.4	*****	0.0378	0.0630	2.98	0.485

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
12	0.910	12	12	12	11	12	12
MAXIMUM	0.910	0.560	1.340	0.195	0.060	0.245	1.150
MINIMUM	0.080	0.070	0.250	0.025	0.002	0.010	0.180
RANGE	0.830	0.490	1.090	0.170	0.057	0.235	0.970
ARITH. MEAN	0.407	0.168	0.672	0.086	0.034	0.068	0.590
ARITH. STD. DEV	0.261	0.131	0.400	0.056	0.019	0.061	0.351
GEOM. MEAN	0.321	0.141	0.577	0.069	0.027	0.051	0.503
GEOM. STD. DEV.	2.174	1.758	1.765	2.057	2.466	2.201	1.805
1ST QUANTILE	0.160	0.095	0.380	0.037	0.020	0.032	0.337
2ND QUANTILE	0.375	0.130	0.500	0.077	0.027	0.057	0.470
3RD QUANTILE	0.600	0.185	0.980	0.130	0.050	0.080	0.892
VOL. WGT. MEAN	0.324	0.133	0.591	0.066	0.030	0.051	0.517

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

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STATION NAME : PALMERSTON/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31,84 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.1000	10.00	1.10	20.28	132.20	16.70	0.60
MINIMUM	0.0010	0.50	0.10	1.37	12.68	2.41	0.20
RANGE	0.0990	9.50	1.00	18.91	119.52	14.28	0.40
ARITH. MEAN	0.0158	4.37	0.58	8.72	58.14	7.28	0.25
ARITH. STD. DEV.	0.0269	3.02	0.43	5.10	35.98	4.09	0.12
GEOM. MEAN	0.0081	3.16	0.42	7.27	46.70	6.36	0.23
GEOM. STD. DEV.	3.0897	2.59	2.51	1.99	2.11	1.72	1.43
1ST QUANTILE	0.0060	1.50	0.25	5.56	28.09	4.82	0.20
2ND QUANTILE	0.0075	4.50	0.35	7.62	60.34	6.02	0.20
3RD QUANTILE	0.0135	6.50	1.05	10.81	75.65	9.04	0.20
VOL. WGT. MEAN	0.0183	3.38	0.67	7.03	46.90	6.00	0.22

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	12	12	12
MAXIMUM	109.40	3.40	0.42
MINIMUM	12.57	0.14	0.03
RANGE	96.83	3.26	0.39
ARITH. MEAN	55.03	1.51	0.17
ARITH. STD. DEV.	35.56	1.01	0.15
GEOM. MEAN	44.51	1.15	0.12
GEOM. STD. DEV.	2.02	2.41	2.49
1ST QUANTILE	27.03	0.75	0.05
2ND QUANTILE	43.36	1.25	0.08
3RD QUANTILE	90.39	2.08	0.30
VOL. WGT. MEAN	41.38	1.28	0.14

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PICKLE LAKE/CUMULATIVE PRECIP. #36

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
:	MM	UMHO/CM	LAB	LAB	GRAM	MG/L	AS N
MAXIMUM	11	11	10	10	11	11	11
MINIMUM	173.2	10.9	6.23	0.0135	0.0361	1.15	0.300
RANGE	10.8	4.1	4.87	0.0006	0.0109	0.35	0.025
ARITH. MEAN	162.4	6.8	1.36	0.0129	0.0252	0.80	0.275
ARITH. STD. DEV	80.7	7.5	5.24	0.0073	0.0256	0.71	0.130
GEOM. MEAN	55.1	2.0	0.39	0.0039	0.0074	0.28	0.083
GEOM. STD. DEV.	57.6	7.3	5.22	0.0058	0.0244	0.65	0.102
1ST QUARTILE	2.7	1.3	1.07	2.4508	1.4079	1.54	2.257
2ND QUARTILE	17.1	5.8	4.95	0.0043	0.0196	0.38	0.047
3RD QUARTILE	80.9	6.9	5.15	0.0071	0.0252	0.67	0.115
VOL. WGT. MEAN	121.0	8.7	5.30	0.0093	0.0298	0.92	0.170
	*****	7.0	*****	0.0076	0.0248	0.66	0.103

# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
:	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
MAXIMUM	11	11	11	11	11	11	11
MINIMUM	1.670	0.350	0.540	0.255	0.115	0.310	0.265
RANGE	0.080	0.020	0.030	0.002	0.008	0.002	0.000
ARITH. MEAN	1.590	0.330	0.510	0.252	0.107	0.308	0.265
ARITH. STD. DEV	0.314	0.138	0.241	0.050	0.038	0.102	0.096
GEOM. MEAN	0.475	0.116	0.148	0.076	0.032	0.106	0.095
GEOM. STD. DEV.	0.178	0.090	0.193	0.021	0.026	0.057	0.119
1ST QUARTILE	2.590	2.876	2.201	3.947	2.596	3.773	3.334
2ND QUARTILE	0.085	0.022	0.115	0.005	0.009	0.027	0.002
3RD QUARTILE	0.115	0.085	0.200	0.020	0.032	0.057	0.062
VOL. WGT. MEAN	0.195	0.200	0.330	0.200	0.047	0.110	0.142
	0.344	0.103	0.235	0.048	0.033	0.061	0.093

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PICKLE LAKE/CUMULATIVE PRECIP. #36

PERIOD OF REPORT : JAN 2.85 TO DEC 31.85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	11	10	10	10	10	10	10
MAXIMUM	0.0650	41.00	4.40	28.75	392.30	13.99	1.40
MINIMUM	0.0015	0.50	0.10	0.63	3.09	1.26	0.20
RANGE	0.0615	40.50	4.30	28.12	389.20	12.73	1.20
ARITH. MEAN	0.0166	6.65	0.75	5.60	82.03	5.11	0.37
ARITH. STD. DEV.	0.0179	12.40	1.34	8.39	120.77	4.36	0.39
GEOM. MEAN	0.0092	2.56	0.29	3.03	34.38	3.61	0.28
GEOM. STD. DEV.	3.5302	3.71	3.81	2.94	4.27	2.45	2.00
1ST QUARTILE	0.0018	1.00	0.10	1.40	9.58	1.44	0.20
2ND QUARTILE	0.0110	2.00	0.20	2.38	39.95	3.35	0.20
3RD QUARTILE	0.0210	4.00	0.50	5.14	62.85	7.07	0.20
VOL. WGT. MEAN	0.0173	7.86	1.23	3.02	92.32	4.59	0.39

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	10	10	10
MAXIMUM	233.50	30.17	0.12
MINIMUM	7.93	0.34	0.01
RANGE	225.57	29.83	0.11
ARITH. MEAN	62.05	4.35	0.05
ARITH. STD. DEV.	74.61	9.16	0.04
GEOM. MEAN	38.04	1.47	0.04
GEOM. STD. DEV.	2.67	3.83	2.58
1ST QUARTILE	23.35	0.48	0.01
2ND QUARTILE	28.96	1.08	0.06
3RD QUARTILE	41.71	2.40	0.06
VOL. WGT. MEAN	58.45	2.14	0.05

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PORT STANLEY/CUMULATIVE PRECIP. #03

PERIOD OF REPORT : JAN 2.85 TO DEC 31.85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
13	13	13	12	12	12	13	13
MAXIMUM	220.0	75.1	4.86	0.1259	0.1840	8.30	1.140
MINIMUM	13.0	19.5	3.90	0.0138	0.0396	2.70	0.430
RANGE	207.0	55.6	0.96	0.1121	0.1444	5.60	0.710
ARITH. MEAN	83.4	37.5	4.27	0.0612	0.0929	4.20	0.709
ARITH. STD. DEV	56.5	13.9	0.24	0.0287	0.0359	1.69	0.232
GEOM. MEAN	64.5	35.5	4.26	0.0542	0.0871	3.95	0.676
GEOM. STD. DEV.	2.3	1.4	1.06	1.7474	1.4593	1.43	1.374
1ST QUARTILE	37.0	28.4	4.15	0.0427	0.0737	2.77	0.525
2ND QUARTILE	69.5	35.1	4.21	0.0611	0.0916	3.65	0.600
3RD QUARTILE	106.0	39.7	4.37	0.0708	0.1005	4.25	0.835
VOL. WGT. MEAN	*****	36.5	*****	0.0640	0.0933	3.73	0.614

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
11	13	13	13	12	12	12	13
MAXIMUM	2.120	0.510	1.340	0.410	0.105	0.190	1.100
MINIMUM	0.160	0.100	0.150	0.025	0.000	0.025	0.145
RANGE	1.960	0.410	1.190	0.385	0.105	0.165	0.955
ARITH. MEAN	0.653	0.229	0.585	0.141	0.049	0.075	0.472
ARITH. STD. DEV	0.585	0.136	0.305	0.136	0.040	0.054	0.269
GEOM. MEAN	0.476	0.198	0.512	0.095	0.046	0.062	0.403
GEOM. STD. DEV.	2.284	1.722	1.765	2.499	3.068	1.863	1.832
1ST QUARTILE	0.195	0.125	0.330	0.045	0.008	0.045	0.233
2ND QUARTILE	0.440	0.170	0.600	0.045	0.045	0.055	0.478
3RD QUARTILE	0.780	0.245	0.685	0.197	0.087	0.085	0.565
VOL. WGT. MEAN	0.415	0.186	0.479	0.081	0.031	0.057	0.396

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PORT STANLEY/CUMULATIVE PRECIP. #03

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.1230	30.00	2.10	22.39	885.70	16.88	1.40
MINIMUM	0.0000	1.00	0.10	1.16	15.04	1.17	0.20
RANGE	0.1230	29.00	2.00	21.23	870.66	17.70	1.20
ARITH. MEAN	0.0196	7.92	0.75	9.89	145.60	7.80	0.34
ARITH. STD. DEV	0.0339	8.15	0.67	6.92	234.13	6.12	0.34
GEOM. MEAN	0.0121	4.97	0.46	7.56	67.42	5.74	0.27
GEOM. STD. DEV.	4.0533	2.85	3.08	2.29	3.49	2.34	1.83
1ST QUARTILE	0.0018	2.00	0.15	4.19	19.03	2.82	0.20
2ND QUARTILE	0.0070	5.00	0.60	7.33	68.93	5.54	0.20
3RD QUARTILE	0.0100	8.50	1.05	12.11	128.75	9.04	0.20
VOL. WGT. MEAN	0.0101	4.85	0.67	7.02	80.41	5.98	0.27

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	13	13	13
MAXIMUM	892.00	4.31	0.35
MINIMUM	22.72	0.12	0.03
RANGE	869.28	4.19	0.32
ARITH. MEAN	151.93	1.88	0.10
ARITH. STD. DEV	233.46	1.37	0.08
GEOM. MEAN	80.69	1.25	0.08
GEOM. STD. DEV.	2.96	3.02	1.97
1ST QUARTILE	28.65	0.59	0.06
2ND QUARTILE	88.17	1.70	0.06
3RD QUARTILE	123.65	2.66	0.11
VOL. WGT. MEAN	86.04	1.29	0.08

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/CUMULATIVE PRECIP. #32

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
:	MM	UMHO/CM	LAB	LAB	GRAM	MG/L	AS N
MAXIMUM	12	12	12	12	12	12	12
MINIMUM	211.0	16.7	6.50	0.0288	0.0575	1.60	0.440
RANGE	8.9	6.4	4.54	0.0003	0.0205	0.55	0.120
ARITH. MEAN	202.1	10.3	1.96	0.0285	0.0370	1.05	0.320
ARITH. STD. DEV.	74.8	10.8	5.16	0.0111	0.0341	1.05	0.252
GEOM. MEAN	63.9	3.5	0.58	0.0081	0.0107	0.39	0.097
GEOM. STD. DEV.	51.6	10.3	5.13	0.0069	0.0326	0.98	0.236
1ST QUARTILE	2.6	1.4	1.11	3.8290	1.3514	1.47	1.458
2ND QUARTILE	23.7	8.6	4.79	0.0065	0.0281	0.67	0.180
3RD QUARTILE	61.1	8.9	5.02	0.0097	0.0308	1.00	0.230
VOL. WGT. MEAN	110.0	14.7	5.19	0.0162	0.0405	1.38	0.300
	*****	9.5	*****	0.0085	0.0304	1.07	0.209

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# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
:	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
MAXIMUM	12	12	12	12	12	12	12
MINIMUM	0.430	0.360	0.700	0.070	0.085	0.330	0.450
RANGE	0.100	0.025	0.060	0.005	0.000	0.040	0.000
ARITH. MEAN	0.330	0.355	0.640	0.065	0.085	0.290	0.450
ARITH. STD. DEV.	0.233	0.143	0.365	0.031	0.035	0.090	0.225
GEOM. MEAN	0.112	0.088	0.228	0.022	0.030	0.073	0.153
GEOM. STD. DEV.	0.208	0.120	0.290	0.022	0.035	0.073	0.227
1ST QUARTILE	1.665	1.937	2.178	2.696	2.912	1.823	2.080
2ND QUARTILE	0.120	0.085	0.190	0.010	0.006	0.047	0.105
3RD QUARTILE	0.230	0.140	0.345	0.030	0.025	0.062	0.212
VOL. WGT. MEAN	0.290	0.165	0.560	0.047	0.062	0.100	0.358
	0.247	0.108	0.372	0.032	0.036	0.063	0.260

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GJETICO CENTRE/CUMULATIVE PRECIP. #32

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	12	11	11	11	11	11	11
MAXIMUM :	0.0530	8.00	1.00	7.56	104.60	9.42	0.20
MINIMUM :	0.0015	1.00	0.10	0.94	8.33	0.72	0.20
RANGE :	0.0515	7.00	0.90	6.63	96.27	8.70	0.00
ARITH. MEAN :	0.0165	3.64	0.34	3.47	41.28	2.85	0.20
ARITH. STD. DEV. :	0.0148	2.25	0.29	2.28	27.49	2.50	0.00
GEOM. MEAN :	0.0107	3.05	0.24	2.78	33.52	2.17	0.20
GEOM. STD. DEV. :	2.9493	1.88	2.33	2.07	2.03	2.12	1.00
1ST QUARTILE :	0.0060	2.00	0.10	1.10	17.69	1.08	0.20
2ND QUARTILE :	0.0140	2.50	0.20	2.95	33.33	2.08	0.20
3RD QUARTILE :	0.0215	4.50	0.50	4.41	50.85	3.37	0.20
VOL. WGT. MEAN :	0.0107	3.68	0.27	2.45	35.56	2.28	0.20

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	11	11	11
MAXIMUM :	105.50	2.43	0.08
MINIMUM :	11.81	0.12	0.01
RANGE :	93.69	2.31	0.07
ARITH. MEAN :	48.33	0.95	0.05
ARITH. STD. DEV. :	29.51	0.72	0.02
GEOM. MEAN :	39.69	0.67	0.04
GEOM. STD. DEV. :	2.01	2.65	1.80
1ST QUARTILE :	17.04	0.23	0.03
2ND QUARTILE :	44.15	0.75	0.04
3RD QUARTILE :	55.71	1.48	0.05
VOL. WGT. MEAN :	43.65	0.83	0.04

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SHALLOW LAKE/CUMULATIVE PRECIP. #09

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	13	11	11	11	11	11	11
MINIMUM	176.0	44.4	4.52	0.0692	0.1060	5.00	0.990
RANGE	47.0	23.8	4.16	0.0302	0.0555	1.70	0.310
ARITH. MEAN	129.0	20.6	0.36	0.0390	0.0505	3.30	0.680
ARITH. STD. DEV	90.5	32.0	4.32	0.0493	0.0777	3.33	0.575
GEOM. MEAN	34.9	7.0	0.12	0.0127	0.0169	1.08	0.182
GEOM. STD. DEV.	84.7	31.3	4.32	0.0478	0.0760	3.16	0.549
1ST QUARTILE	1.5	1.2	1.03	1.3118	1.2405	1.42	1.370
2ND QUARTILE	59.0	25.1	4.20	0.0362	0.0604	2.10	0.400
3RD QUARTILE	90.5	30.3	4.30	0.0457	0.0759	3.27	0.555
VOL. WGT. MEAN	106.0	34.5	4.37	0.0576	0.0836	4.13	0.650
	*****	31.1	*****	0.0499	0.0772	3.15	0.540

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	10	11	11	10	10	10	11
MINIMUM	0.730	0.270	0.910	0.140	0.105	0.120	0.785
RANGE	0.150	0.030	0.240	0.020	0.000	0.010	0.160
ARITH. MEAN	0.580	0.270	0.670	0.120	0.105	0.110	0.625
ARITH. STD. DEV	0.409	0.131	0.576	0.072	0.030	0.054	0.479
GEOM. MEAN	0.212	0.066	0.246	0.038	0.031	0.040	0.208
GEOM. STD. DEV.	0.352	0.114	0.523	0.062	0.034	0.042	0.430
1ST QUARTILE	1.845	1.801	1.626	1.823	2.594	2.239	1.675
2ND QUARTILE	0.165	0.075	0.300	0.040	0.009	0.025	0.257
3RD QUARTILE	0.460	0.125	0.545	0.070	0.022	0.035	0.438
VOL. WGT. MEAN	0.550	0.155	0.795	0.085	0.037	0.085	0.652
	0.363	0.123	0.540	0.062	0.028	0.053	0.443

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SHALLOW LAKE/CUMULATIVE PRECIP. #09

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	11	11	11	10	11	11	11
MAXIMUM :	0.0140	10.00	1.20	6.84	102.70	11.35	0.90
MINIMUM :	0.0015	0.50	0.10	1.15	6.97	2.15	0.20
RANGE :	0.0125	9.50	1.10	5.68	95.72	9.20	0.70
ARITH. MEAN :	0.0061	4.00	0.37	4.53	44.60	5.26	0.29
ARITH. STD. DEV :	0.0047	3.54	0.42	1.66	34.60	2.60	0.22
GEOM. MEAN :	0.0045	2.48	0.24	4.13	31.91	4.72	0.25
GEOM. STD. DEV. :	2.3489	3.07	2.54	1.67	2.49	1.64	1.66
1ST QUARTILE :	0.0018	0.75	0.10	3.29	13.25	2.90	0.20
2ND QUARTILE :	0.0042	2.50	0.20	4.80	30.21	4.78	0.20
3RD QUARTILE :	0.0080	6.50	0.35	5.31	75.38	6.48	0.20
VOL. WGT. MEAN :	0.0061	3.32	0.44	4.32	30.65	5.43	0.29

ALUMINIUM

COPPER

CADMIUM

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	11	11	10
MAXIMUM :	103.20	1.76	0.15
MINIMUM :	12.99	0.14	0.02
RANGE :	90.21	1.62	0.13
ARITH. MEAN :	46.35	0.88	0.07
ARITH. STD. DEV :	34.21	0.57	0.04
GEOM. MEAN :	36.07	0.66	0.06
GEOM. STD. DEV. :	2.10	2.43	2.03
1ST QUARTILE :	17.40	0.25	0.02
2ND QUARTILE :	27.69	0.70	0.07
3RD QUARTILE :	72.73	1.32	0.09
VOL. WGT. MEAN :	40.62	0.83	0.07

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SMITH'S FALLS/CUMULATIVE PRECIP. #15

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	13	46.4	12	12	13	13	13
MINIMUM	110.0	46.4	4.65	0.0933	0.1170	4.80	1.210
RANGE	4.0	14.3	4.03	0.0224	0.0255	0.90	0.240
ARITH. MEAN	106.0	32.1	4.33	0.0709	0.0915	3.90	0.970
ARITH. STD. DEV.	54.2	29.8	4.33	0.0506	0.0760	2.79	0.602
GEOM. MEAN	26.2	9.2	4.19	0.0204	0.0257	1.21	0.249
GEOM. STD. DEV.	44.6	28.3	4.33	0.0467	0.0709	2.50	0.558
1ST QUANTILE	2.3	1.4	4.04	1.5414	1.5166	1.68	1.504
2ND QUANTILE	33.5	24.4	4.22	0.0365	0.0568	1.92	0.440
3RD QUANTILE	59.5	28.3	4.30	0.0508	0.0769	2.77	0.550
VOL. WGT. MEAN	64.5	33.6	4.44	0.0604	0.0867	3.35	0.635
	*****	27.9	*****	0.0458	0.0729	2.69	0.527

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	11	13	13	11	12	12	13
MINIMUM	0.730	0.450	1.030	0.250	0.175	0.270	0.845
RANGE	0.090	0.020	0.120	0.005	0.000	0.010	0.075
ARITH. MEAN	0.640	0.430	0.910	0.245	0.175	0.260	0.770
ARITH. STD. DEV.	0.354	0.184	0.440	0.077	0.041	0.078	0.327
GEOM. MEAN	0.202	0.124	0.244	0.070	0.048	0.079	0.216
GEOM. STD. DEV.	0.294	0.139	0.378	0.052	0.033	0.054	0.264
1ST QUANTILE	1.975	2.429	1.820	2.831	3.593	2.407	2.035
2ND QUANTILE	0.140	0.110	0.250	0.027	0.005	0.035	0.162
3RD QUANTILE	0.315	0.165	0.380	0.055	0.027	0.050	0.262
VOL. WGT. MEAN	0.480	0.205	0.560	0.087	0.055	0.075	0.387
	0.324	0.159	0.389	0.072	0.033	0.064	0.290

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SMITH'S FALLS/CUMULATIVE PRECIP. #15

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	13	13	13	13	13	12	13
MAXIMUM :	0.0160	7.00	1.40	31.77	97.02	11.19	0.80
MINIMUM :	0.0005	0.50	0.10	1.00	6.00	0.67	0.20
RANGE :	0.0155	6.50	1.30	30.76	91.02	10.52	0.60
ARITH. MEAN :	0.0049	3.58	0.45	9.32	42.58	6.04	0.28
ARITH. STD. DEV :	0.0045	2.31	0.37	8.24	25.99	2.76	0.17
GEOM. MEAN :	0.0033	2.75	0.33	6.70	34.19	5.13	0.25
GEOM. STD. DEV. :	2.5987	2.31	2.47	2.43	2.14	2.07	1.55
1ST QUARTILE :	0.0018	1.50	0.10	4.19	22.76	4.32	0.20
2ND QUARTILE :	0.0025	3.00	0.40	7.29	34.33	6.22	0.20
3RD QUARTILE :	0.0065	5.00	0.55	9.79	54.02	7.86	0.20
VOL. WGT. MEAN :	0.0045	3.37	0.46	8.50	40.24	5.29	0.25

CADMIUM

COPPER

ALUMINUM

	UG/L	UG/L	UG/L
# OF SAMPLES :	13	13	13
MAXIMUM :	106.90	3.02	0.40
MINIMUM :	14.52	0.05	0.01
RANGE :	92.38	2.97	0.39
ARITH. MEAN :	43.35	1.44	0.13
ARITH. STD. DEV :	26.28	1.02	0.11
GEOM. MEAN :	36.50	0.96	0.08
GEOM. STD. DEV. :	1.87	3.18	2.90
1ST QUARTILE :	19.20	0.51	0.04
2ND QUARTILE :	40.09	0.98	0.07
3RD QUARTILE :	51.45	2.33	0.16
VOL. WGT. MEAN :	41.19	1.28	0.15

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : TURKEY LAKE/CUMULATIVE PRECIP. #37

PERIOD OF REPORT : JAN 1,85 TO DEC 31,85

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	PRECIP.		CONDUCT.	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
	MM	MM	UMHO/CM					
# OF SAMPLES	11	11	11	11	11	11	11	11
MAXIMUM	102.4	56.4	56.4	4.76	0.0891	0.1380	6.30	0.75
MINIMUM	15.9	12.2	12.2	4.05	0.0174	0.0399	0.80	0.25
RANGE	86.5	44.2	44.2	0.71	0.0717	0.0981	5.50	0.50
ARITH. MEAN	61.5	24.1	24.1	4.48	0.0375	0.0636	2.40	0.44
ARITH. STD. DEV.	33.1	12.5	12.5	0.21	0.0208	0.0282	1.53	0.21
GEOM. MEAN	51.0	21.0	21.0	4.47	0.0335	0.0594	2.01	0.45
GEOM. STD. DEV.	1.9	1.6	1.6	1.05	1.6242	1.4435	1.88	1.55
1ST QUARTILE	26.8	12.6	12.6	4.27	0.0209	0.0412	0.90	0.25
2ND QUARTILE	54.1	21.6	21.6	4.47	0.0306	0.0533	2.30	0.36
3RD QUARTILE	90.7	28.3	28.3	4.62	0.0444	0.0705	2.67	0.61
VOL. WGT. MEAN	*****	25.7	25.7	*****	0.0396	0.0662	2.71	0.43

	CALCIUM		CHLORIDE	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
	MG/L	MG/L						
# OF SAMPLES	11	11	11	11	11	10	11	11
MAXIMUM	0.520	0.180	0.180	0.870	0.105	0.065	0.100	0.75
MINIMUM	0.060	0.010	0.010	0.090	0.008	0.000	0.002	0.06
RANGE	0.460	0.170	0.170	0.780	0.097	0.065	0.098	0.72
ARITH. MEAN	0.233	0.082	0.082	0.446	0.046	0.034	0.041	0.36
ARITH. STD. DEV.	0.158	0.059	0.059	0.275	0.033	0.024	0.033	0.25
GEOM. MEAN	0.183	0.058	0.058	0.353	0.036	0.043	0.028	0.25
GEOM. STD. DEV.	2.142	2.687	2.687	2.188	2.198	2.292	2.974	2.45
1ST QUARTILE	0.080	0.020	0.020	0.155	0.020	0.009	0.016	0.08
2ND QUARTILE	0.155	0.075	0.075	0.445	0.037	0.035	0.025	0.35
3RD QUARTILE	0.350	0.120	0.120	0.590	0.052	0.052	0.057	0.45
VOL. WGT. MEAN	0.254	0.067	0.067	0.487	0.055	0.043	0.041	0.36

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : TURKEY LAKE/CUMULATIVE PRECIP. #37

PERIOD OF REPORT : JAN 1,85 TO DEC 31,85

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	11	11	10	10	10	11	10
MAXIMUM :	0.0140	12.00	1.00	17.85	292.10	20.29	0.60
MINIMUM :	0.0015	1.00	0.10	1.55	8.43	1.28	0.20
RANGE :	0.0125	11.00	0.90	16.30	283.67	19.01	0.40
ARITH. MEAN :	0.0060	5.45	0.37	6.47	64.23	6.81	0.28
ARITH. STD. DEV. :	0.0041	3.45	0.28	4.81	83.55	5.42	0.14
GEOM. MEAN :	0.0047	4.44	0.29	5.09	38.41	5.11	0.26
GEOM. STD. DEV. :	2.1972	2.05	2.12	2.12	2.79	2.30	1.51
1ST QUARTILE :	0.0020	2.50	0.15	2.53	15.59	2.37	0.20
2ND QUARTILE :	0.0055	4.50	0.30	5.27	46.31	4.76	0.20
3RD QUARTILE :	0.0080	6.50	0.40	7.90	57.29	8.36	0.30
VOL. WGT. MEAN :	0.0069	6.20	0.35	6.32	76.26	6.68	0.31

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	10	11	11
MAXIMUM :	218.90	2.76	0.14
MINIMUM :	9.38	0.16	0.04
RANGE :	209.52	2.60	0.10
ARITH. MEAN :	58.49	1.01	0.08
ARITH. STD. DEV. :	61.90	0.71	0.03
GEOM. MEAN :	39.58	0.79	0.07
GEOM. STD. DEV. :	2.49	2.19	1.46
1ST QUARTILE :	18.29	0.42	0.05
2ND QUARTILE :	37.43	0.90	0.06
3RD QUARTILE :	62.17	1.28	0.10
VOL. WGT. MEAN :	67.72	1.07	0.08

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : UXBRIDGE/CUMULATIVE PRECIP. #11

PERIOD OF REPORT : JAN 2.85 TO JAN 7.86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	170.0	41.8	8	0.0759	0.0990	8	8
MINIMUM	1.5	9.2	4.92	0.0120	0.0155	4.95	0.92
RANGE	168.5	32.6	4.12	0.0638	0.0835	0.55	0.16
ARITH. MEAN	75.1	27.9	0.80	0.0405	0.0676	4.40	0.76
ARITH. STD. DEV.	55.7	10.7	4.38	0.0244	0.0311	3.09	0.59
GEOM. MEAN	44.6	25.6	0.29	0.0412	0.0586	1.33	0.22
GEOM. STD. DEV.	4.3	1.6	4.38	1.9669	1.8852	2.67	0.42
1ST QUARTILE	24.5	21.6	1.07	0.0267	0.0376	1.98	1.65
2ND QUARTILE	57.5	27.3	4.16	0.0542	0.0703	2.43	0.41
3RD QUARTILE	109.5	37.3	4.27	0.0692	0.0911	3.32	0.50
VOL. WGT. MEAN	*****	27.1	4.59	0.0489	0.0684	3.85	0.65
			*****			2.61	0.50

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	6	8	8	7	8	8	9
MINIMUM	0.860	0.590	0.880	0.140	0.080	0.245	0.71
RANGE	0.000	0.090	0.080	0.000	0.030	0.025	0.00
ARITH. MEAN	0.860	0.500	0.800	0.140	0.050	0.220	0.71
ARITH. STD. DEV.	0.385	0.182	0.480	0.066	0.042	0.072	0.33
GEOM. MEAN	0.323	0.168	0.277	0.052	0.017	0.072	0.23
GEOM. STD. DEV.	0.438	0.146	0.369	0.097	0.040	0.055	0.35
1ST QUARTILE	2.100	1.869	2.194	2.020	1.405	2.062	2.18
2ND QUARTILE	0.055	0.090	0.310	0.015	0.030	0.035	0.13
3RD QUARTILE	0.365	0.135	0.410	0.042	0.037	0.052	0.32
VOL. WGT. MEAN	0.540	0.165	0.720	0.105	0.047	0.067	0.43
	0.238	0.199	0.386	0.043	0.042	0.085	0.29

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : UXBRIDGE/CUMULATIVE PRECIP. #11

PERIOD OF REPORT : JAN 2,85 TO JAN 7,86

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	#	#	#	#	#	#	#
MAXIMUM :	0.0140	11.00	1.20	13.94	139.20	16.68	0.50
MINIMUM :	0.0000	0.50	0.10	3.12	12.58	2.71	0.20
RANGE :	0.0140	10.50	1.10	10.82	126.62	13.97	0.30
ARITH. MEAN :	0.0060	4.56	0.47	7.14	55.13	7.70	0.24
ARITH. STD. DEV :	0.0056	3.81	0.46	3.73	44.00	4.29	0.11
GEOM. MEAN :	0.0090	3.23	0.28	6.36	40.13	6.75	0.22
GEOM. STD. DEV. :	3.3184	2.63	3.14	1.67	2.45	1.74	1.38
1ST QUARTILE :	0.0012	2.50	0.10	4.27	18.41	4.77	0.20
2ND QUARTILE :	0.0047	3.00	0.30	6.46	44.54	7.42	0.20
3RD QUARTILE :	0.0110	7.00	0.85	9.29	81.67	8.90	0.20
VOL. WGT. MEAN :	0.0037	3.42	0.40	6.41	34.99	6.43	0.23

CADMIUM

COPPER

ALUMINIUM

	UG/L	UG/L	UG/L
# OF SAMPLES :	#	#	#
MAXIMUM :	121.00	2.40	0.26
MINIMUM :	2.89	0.36	0.03
RANGE :	118.11	2.04	0.23
ARITH. MEAN :	49.17	1.09	0.11
ARITH. STD. DEV :	39.31	0.64	0.08
GEOM. MEAN :	32.62	0.93	0.09
GEOM. STD. DEV. :	3.19	1.90	1.98
1ST QUARTILE :	22.07	0.61	0.06
2ND QUARTILE :	41.00	1.11	0.08
3RD QUARTILE :	71.65	1.26	0.16
VOL. WGT. MEAN :	31.65	0.83	0.10

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WATERLOO/CUMULATIVE PRECIP. #07

PERIOD OF REPORT : JAN 1,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
:	13	13	13	13	13	13	13
MAXIMUM	189.0	48.9	6.90	0.0851	0.1220	10.40	1.280
MINIMUM	26.0	5.2	4.07	0.0001	0.0255	0.35	0.025
RANGE	163.0	43.7	2.83	0.0850	0.0965	10.05	1.255
ARITH. MEAN	86.5	31.4	4.64	0.0408	0.0690	3.82	0.570
ARITH. STD. DEV	47.7	13.0	0.76	0.0268	0.0306	2.84	0.367
GEOM. MEAN	74.3	27.6	4.60	0.0227	0.0621	2.92	0.427
GEOM. STD. DEV.	1.8	1.8	1.15	5.7702	1.6495	2.31	2.709
1ST QUARTILE	47.5	21.9	4.22	0.0150	0.0400	2.05	0.325
2ND QUARTILE	73.0	30.6	4.35	0.0398	0.0656	3.07	0.495
3RD QUARTILE	108.0	41.9	4.63	0.0544	0.0821	3.90	0.620
VOL. WGT. MEAN	*****	30.6	*****	0.0468	0.0736	3.23	0.523

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	12	13	13	13	12	13	13
MAXIMUM	2.520	0.540	3.270	0.605	0.110	0.200	1.450
MINIMUM	0.020	0.015	0.080	0.005	0.002	0.008	0.030
RANGE	2.500	0.525	3.190	0.600	0.108	0.192	1.420
ARITH. MEAN	0.497	0.232	0.767	0.134	0.035	0.089	0.498
ARITH. STD. DEV	0.660	0.157	0.867	0.187	0.031	0.064	0.397
GEOM. MEAN	0.273	0.162	0.503	0.069	0.022	0.062	0.357
GEOM. STD. DEV.	3.509	2.875	2.548	3.334	3.125	2.748	2.632
1ST QUARTILE	0.190	0.100	0.260	0.035	0.009	0.025	0.223
2ND QUARTILE	0.370	0.220	0.410	0.072	0.030	0.072	0.350
3RD QUARTILE	0.490	0.325	0.690	0.082	0.050	0.123	0.605
VOL. WGT. MEAN	0.382	0.191	0.530	0.088	0.026	0.078	0.394

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WATERLOO/CUMULATIVE PRECIP. #07

PERIOD OF REPORT : JAN 1,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	12	13	13	13	13	13	13
MAXIMUM :	0.0370	21.00	3.00	32.62	390.00	20.86	1.30
MINIMUM :	0.0010	0.50	0.10	2.55	13.67	1.70	0.20
RANGE :	0.0360	20.50	2.90	30.07	376.13	19.16	1.10
ARITH. MEAN :	0.0095	6.65	0.82	11.45	123.48	8.99	0.42
ARITH. STD. DEV :	0.0107	6.72	0.89	9.08	123.48	5.12	0.36
GEOM. MEAN :	0.0051	3.98	0.47	8.76	76.86	7.65	0.31
GEOM. STD. DEV. :	3.4870	3.13	3.04	2.15	2.84	1.88	2.06
1ST QUARTILE :	0.0017	1.50	0.20	5.20	32.02	5.94	0.20
2ND QUARTILE :	0.0060	4.50	0.45	7.51	71.39	8.16	0.20
3RD QUARTILE :	0.0125	6.50	0.80	12.64	122.10	9.35	0.45
VOL. WGT. MEAN :	0.0071	4.60	0.89	9.63	114.72	9.02	0.35

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	13	13	12
MAXIMUM :	318.70	5.93	2.27
MINIMUM :	15.02	0.14	0.09
RANGE :	302.88	5.79	2.18
ARITH. MEAN :	77.82	2.13	1.00
ARITH. STD. DEV :	89.18	1.79	0.65
GEOM. MEAN :	49.67	1.35	0.72
GEOM. STD. DEV. :	2.55	3.12	2.70
1ST QUARTILE :	20.33	0.65	0.50
2ND QUARTILE :	50.69	1.60	1.00
3RD QUARTILE :	62.34	2.90	1.40
VOL. WGT. MEAN :	62.48	2.28	0.93

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITNEY/CUMULATIVE PRECIP. #19

PERIOD OF REPORT : JAN 2,85 TO JAN 2,86

PAGE : 1

# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
:	MM	UMHO/CM	LAB	LAB	GRAM	MG/L	AS N
MAXIMUM	13	12	12	12	12	12	12
MINIMUM	102.0	47.4	4.59	0.0832	0.1200	5.15	0.810
RANGE	33.0	18.6	4.08	0.0257	0.0564	0.75	0.250
ARITH. MEAN	69.0	28.8	0.51	0.0575	0.0616	4.40	0.560
GEOM. MEAN	62.2	29.9	4.31	0.0521	0.0809	2.66	0.530
1ST QUARTILE	20.3	7.2	4.30	0.0178	0.0171	1.31	0.168
2ND QUARTILE	59.3	29.2	4.30	0.0493	0.0793	2.31	0.504
3RD QUARTILE	1.4	1.3	1.04	1.4296	1.2291	1.81	1.413
VOL. MGT. MEAN	51.0	25.6	4.18	0.0363	0.0680	1.70	0.420
	54.5	29.6	4.28	0.0519	0.0807	2.93	0.515
	70.0	33.6	4.44	0.0655	0.0910	3.43	0.635
	*****	29.6	*****	0.0515	0.0807	2.67	0.511

# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
:	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
MAXIMUM	13	12	12	13	12	12	12
MINIMUM	0.520	0.260	1.240	0.065	0.080	0.145	0.980
RANGE	0.060	0.030	0.120	0.002	0.002	0.005	0.025
ARITH. MEAN	0.460	0.230	1.120	0.063	0.077	0.140	0.955
GEOM. MEAN	0.242	0.142	0.373	0.030	0.023	0.054	0.298
1ST QUARTILE	0.146	0.069	0.309	0.020	0.026	0.038	0.260
2ND QUARTILE	0.199	0.124	0.294	0.022	0.010	0.041	0.207
3RD QUARTILE	1.987	1.798	2.002	2.567	4.086	2.377	2.663
VOL. MGT. MEAN	0.105	0.105	0.175	0.017	0.002	0.030	0.142
	0.190	0.130	0.290	0.025	0.005	0.045	0.227
	0.345	0.180	0.430	0.035	0.042	0.075	0.392
	0.235	0.141	0.356	0.029	0.021	0.058	0.283

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITNEY/CUMULATIVE PRECIP. #19

PERIOD OF REPORT : JAN 2,85 TO JAN 2,86

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	12	11	12	12	11	12	12
MAXIMUM	0.0480	5.00	1.00	9.68	76.37	11.31	0.40
MINIMUM	0.0005	0.50	0.10	2.28	11.56	0.81	0.20
RANGE	0.0475	4.50	0.90	7.40	64.81	10.50	0.20
ARITH. MEAN	0.0105	2.09	0.29	4.69	35.20	6.65	0.23
ARITH. STD. DEV	0.0129	1.63	0.25	1.95	20.12	3.09	0.08
GEOM. MEAN	0.0055	1.55	0.22	4.37	30.25	5.60	0.22
GEOM. STD. DEV.	3.7107	2.31	2.07	1.47	1.80	2.07	1.31
1ST QUARTILE	0.0020	0.75	0.10	3.45	16.91	3.95	0.20
2ND QUARTILE	0.0070	1.00	0.25	4.53	31.17	7.53	0.20
3RD QUARTILE	0.0125	3.50	0.30	5.16	40.85	9.02	0.20
VOL. WGT. MEAN	0.0100	2.03	0.32	4.75	34.32	7.11	0.24

ALUMINUM

COPPER

CADMIUM

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	11	12	12
MAXIMUM	81.62	1.92	0.37
MINIMUM	19.41	0.17	0.03
RANGE	62.21	1.75	0.34
ARITH. MEAN	38.56	0.96	0.11
ARITH. STD. DEV	18.12	0.54	0.11
GEOM. MEAN	35.14	0.79	0.08
GEOM. STD. DEV.	1.57	2.06	2.20
1ST QUARTILE	20.99	0.48	0.04
2ND QUARTILE	36.84	1.06	0.06
3RD QUARTILE	43.98	1.30	0.10
VOL. WGT. MEAN	37.60	1.05	0.12

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILBERFORCE/CUMULATIVE PRECIP. #10
PERIOD OF REPORT : JAN 2,85 TO JAN 3,86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
13	13	13	13	13	13	13	13
MAXIMUM	160.0	37.9	4.48	0.0646	0.0978	4.20	0.860
MINIMUM	36.0	21.3	4.19	0.0331	0.0644	1.00	0.320
RANGE	124.0	16.6	0.29	0.0315	0.0334	3.20	0.540
ARITH. MEAN	83.5	29.3	4.31	0.0499	0.0817	2.66	0.536
ARITH. STD. DEV	35.3	5.6	0.11	0.0115	0.0116	1.14	0.156
GEOM. MEAN	76.5	28.8	4.31	0.0485	0.0809	2.42	0.516
GEOM. STD. DEV.	1.6	1.2	1.02	1.2770	1.1560	1.60	1.338
1ST QUARTILE	55.5	23.6	4.22	0.0376	0.0686	1.65	0.390
2ND QUARTILE	77.5	28.6	4.27	0.0496	0.0828	2.13	0.525
3RD QUARTILE	106.0	32.4	4.37	0.0589	0.0890	3.65	0.610
VOL. WGT. MEAN	*****	28.9	*****	0.0490	0.0816	2.72	0.499

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
12	12	13	13	12	13	13	13
MAXIMUM	0.420	0.300	0.940	0.070	0.060	0.145	0.740
MINIMUM	0.015	0.030	0.170	0.002	0.000	0.008	0.100
RANGE	0.405	0.270	0.770	0.067	0.060	0.137	0.640
ARITH. MEAN	0.220	0.152	0.372	0.031	0.022	0.059	0.304
ARITH. STD. DEV	0.136	0.084	0.240	0.024	0.023	0.048	0.186
GEOM. MEAN	0.167	0.131	0.317	0.020	0.048	0.042	0.259
GEOM. STD. DEV.	2.548	1.840	1.761	3.202	3.564	2.590	1.793
1ST QUARTILE	0.120	0.100	0.275	0.011	0.001	0.020	0.175
2ND QUARTILE	0.200	0.115	0.275	0.027	0.010	0.042	0.233
3RD QUARTILE	0.340	0.160	0.375	0.055	0.040	0.070	0.365
VOL. WGT. MEAN	0.204	0.143	0.376	0.027	0.021	0.055	0.294

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILBERFORCE/CUMULATIVE PRECIP. #18

PERIOD OF REPORT : JAN 2,85 TO JAN 3,86

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	13	13	13	13	12	13	12
MAXIMUM	0.0330	21.00	0.70	8.27	78.67	12.13	0.50
MINIMUM	0.0000	0.50	0.10	2.13	9.43	1.11	0.20
RANGE	0.0330	20.50	0.60	6.14	69.24	11.02	0.30
ARITH. MEAN	0.0098	3.77	0.37	4.30	31.76	6.60	0.24
ARITH. STD. DEV.	0.0100	5.48	0.24	2.30	21.52	3.75	0.10
GEOM. MEAN	0.0091	2.05	0.29	3.79	25.44	5.24	0.23
GEOM. STD. DEV.	3.6439	2.96	2.24	1.67	2.04	2.24	1.37
1ST QUARTILE	0.0012	1.00	0.10	2.31	14.04	3.45	0.20
2ND QUARTILE	0.0075	1.50	0.35	3.26	26.95	6.05	0.20
3RD QUARTILE	0.0115	3.50	0.55	5.50	45.75	9.38	0.20
VOL. WGT. MEAN	0.0087	3.49	0.36	3.88	30.48	5.76	0.25

CADMIUM

COPPER

ALUMINUM

	UG/L	UG/L	UG/L
# OF SAMPLES	12	13	13
MAXIMUM	115.20	3.68	0.13
MINIMUM	11.89	0.21	0.01
RANGE	103.31	3.46	0.12
ARITH. MEAN	53.89	1.52	0.07
ARITH. STD. DEV.	36.21	1.03	0.04
GEOM. MEAN	42.62	1.20	0.05
GEOM. STD. DEV.	2.10	2.15	2.65
1ST QUARTILE	25.32	0.71	0.02
2ND QUARTILE	44.88	1.17	0.06
3RD QUARTILE	83.35	1.78	0.09
VOL. WGT. MEAN	52.27	1.41	0.06

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILKESPORT/CUMULATIVE PRECIP. #04

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	13	12	12	12	12	12	12
MINIMUM	194.0	75.3	4.74	0.1318	0.1750	7.30	2.020
RANGE	9.4	22.9	3.88	0.0182	0.0568	2.30	0.370
ARITH. MEAN	184.6	52.4	0.86	0.1136	0.1182	5.00	1.650
ARITH. STD. DEV.	76.5	40.1	4.28	0.0591	0.0926	4.39	0.762
GEOM. MEAN	48.0	14.5	0.22	0.0293	0.0333	1.72	0.457
GEOM. STD. DEV.	60.9	38.1	4.27	0.0529	0.0880	4.10	0.678
1ST QUARTILE	2.2	1.4	1.05	1.6839	1.3834	1.46	1.592
2ND QUARTILE	34.5	32.0	4.16	0.0405	0.0724	3.05	0.510
3RD QUARTILE	73.7	35.8	4.24	0.0569	0.0860	3.90	0.595
VOL. WGT. MEAN	98.0	46.3	4.40	0.0696	0.1002	5.77	0.850
	*****	39.2	*****	0.0645	0.0953	4.04	0.620

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	10	12	11	10	9	10	12
MINIMUM	1.410	2.900	1.050	0.250	0.145	0.205	1.100
RANGE	0.170	0.130	0.290	0.025	0.002	0.035	0.270
ARITH. MEAN	1.240	2.770	0.760	0.225	0.142	0.170	0.830
ARITH. STD. DEV.	0.524	0.465	0.565	0.090	0.055	0.086	0.534
GEOM. MEAN	0.371	0.775	0.208	0.069	0.043	0.063	0.252
GEOM. STD. DEV.	0.436	0.275	0.553	0.073	0.037	0.070	0.488
1ST QUARTILE	1.856	2.339	1.430	1.940	3.214	1.971	1.548
2ND QUARTILE	0.270	0.160	0.400	0.050	0.025	0.035	0.370
3RD QUARTILE	0.395	0.215	0.580	0.062	0.042	0.067	0.450
VOL. WGT. MEAN	0.565	0.350	0.675	0.085	0.060	0.097	0.670
	0.412	0.236	0.572	0.068	0.051	0.064	0.478

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILKESPORT/CUMULATIVE PRECIP. 804

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	11	11	12	12	12	12	12
MAXIMUM :	0.0680	27.00	1.30	23.14	216.80	14.45	1.00
MINIMUM :	0.0010	1.00	0.10	4.26	18.83	1.22	0.20
RANGE :	0.0670	26.00	1.20	18.88	197.97	13.23	0.80
ARITH. MEAN :	0.0132	5.91	0.67	10.21	66.61	6.52	0.45
ARITH. STD. DEV. :	0.0188	7.34	0.43	6.71	57.84	3.84	0.29
GEOM. MEAN :	0.0071	3.87	0.50	6.55	50.01	5.28	0.38
GEOM. STD. DEV. :	3.2983	2.43	2.45	1.83	2.16	2.13	1.87
1ST QUANTILE :	0.0018	2.00	0.35	5.31	23.13	3.97	0.20
2ND QUANTILE :	0.0090	3.50	0.60	7.21	51.36	6.09	0.40
3RD QUANTILE :	0.0110	5.00	1.10	15.45	76.64	9.15	0.65
VOL. WGT. MEAN :	0.0143	6.11	0.59	8.46	54.71	6.53	0.43

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	12	12	12
MAXIMUM :	171.00	4.79	0.40
MINIMUM :	22.17	0.18	0.03
RANGE :	148.83	4.60	0.37
ARITH. MEAN :	65.09	1.41	0.14
ARITH. STD. DEV. :	44.73	1.24	0.10
GEOM. MEAN :	53.47	1.04	0.11
GEOM. STD. DEV. :	1.91	2.31	1.93
1ST QUANTILE :	33.15	0.69	0.08
2ND QUANTILE :	49.53	0.96	0.11
3RD QUANTILE :	85.93	1.74	0.14
VOL. WGT. MEAN :	54.69	1.12	0.12

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WINISK/CUMULATIVE PRECIP. #29

PERIOD OF REPORT : JAN 26.85 TO JAN 3.86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	6	5	5	5	5	5	5
MINIMUM	396.3	21.8	6.90	0.0022	0.0232	1.40	0.130
RANGE	13.8	11.5	5.65	0.0001	0.0165	0.80	0.000
ARITH. MEAN	382.5	10.3	1.25	0.0021	0.0067	0.60	0.130
ARITH. STD. DEV	89.3	15.9	6.31	0.0009	0.0192	1.04	0.063
GEOM. MEAN	150.9	4.1	0.56	0.0009	0.0025	0.22	0.054
GEOM. STD. DEV.	40.2	15.5	6.29	0.0005	0.0190	1.02	0.107
1ST QUARTILE	3.3	1.3	1.09	3.6110	1.1333	1.23	2.723
2ND QUARTILE	16.0	12.4	5.80	0.0001	0.0174	0.80	0.008
3RD QUARTILE	29.9	14.2	6.06	0.0004	0.0183	0.97	0.047
VOL. WGT. MEAN	39.8	16.5	6.52	0.0009	0.0189	1.02	0.085
	*****	15.3	*****	0.0012	0.0197	1.01	0.077

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	5	5	5	5	5	5	5
MINIMUM	1.410	3.840	0.450	0.555	0.155	2.200	0.005
RANGE	0.350	1.520	0.060	0.155	0.000	0.900	0.000
ARITH. MEAN	1.060	2.320	0.390	0.400	0.155	1.300	0.005
ARITH. STD. DEV	0.604	2.534	0.188	0.254	0.073	1.540	0.001
GEOM. MEAN	0.454	0.923	0.158	0.170	0.055	0.478	0.002
GEOM. STD. DEV.	0.514	2.404	0.146	0.223	0.140	1.477	0.105
1ST QUARTILE	1.783	1.439	2.187	1.694	1.828	1.393	11.105
2ND QUARTILE	0.355	1.765	0.080	0.157	0.032	1.110	0.000
3RD QUARTILE	0.390	2.115	0.105	0.173	0.067	1.475	0.000
VOL. WGT. MEAN	0.450	2.650	0.165	0.200	0.072	1.640	0.001
	0.496	2.320	0.181	0.215	0.061	1.416	0.001

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WINISK/CUMULATIVE PRECIP.

#29

PERIOD OF REPORT : JAN 26,85 TO JAN 3,86

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	5	4	4	4	4	4	4
MAXIMUM	0.0320	8.00	0.50	110.30	543.00	10.29	0.60
MINIMUM	0.0090	1.00	0.20	1.92	27.98	4.05	0.20
RANGE	0.0230	7.00	0.30	108.38	515.02	6.24	0.40
ARITH. MEAN	0.0232	3.00	0.30	31.51	160.92	7.35	0.30
ARITH. STD. DEV.	0.0087	3.37	0.14	52.59	254.76	3.11	0.20
GEOM. MEAN	0.0214	2.00	0.28	9.95	66.81	6.82	0.26
GEOM. STD. DEV.	1.6498	2.67	1.54	5.56	4.07	1.58	1.73
1ST QUARTILE	0.0160	1.00	0.20	3.82	30.56	4.70	0.20
2ND QUARTILE	0.0235	1.50	0.25	6.91	36.36	7.53	0.20
3RD QUARTILE	0.0260	5.00	0.40	59.20	291.28	9.99	0.40
VOL. WGT. MEAN	0.0210	3.16	0.29	31.25	161.92	8.07	0.30

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	4	4	4
MAXIMUM	98.50	9.29	0.19
MINIMUM	24.06	0.91	0.02
RANGE	74.44	8.38	0.17
ARITH. MEAN	52.78	3.11	0.08
ARITH. STD. DEV.	32.15	4.12	0.08
GEOM. MEAN	46.31	1.80	0.06
GEOM. STD. DEV.	1.79	3.00	2.52
1ST QUARTILE	31.92	0.99	0.03
2ND QUARTILE	44.27	1.12	0.05
3RD QUARTILE	73.63	5.23	0.13
VOL. WGT. MEAN	50.08	3.18	0.08

PART IV

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31,84 TO JAN 7,86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAM MG/L	SULPHATE MG/L	NITRATE AS N MG/L
59	59	56	55	55	57	56	56
MAXIMUM	243.0	64.7	5.10	0.1122	0.1470	9.00	1.190
MINIMUM	1.5	6.1	3.95	0.0079	0.0155	0.35	0.090
RANGE	241.5	58.6	1.15	0.1043	0.1315	8.65	1.100
ARITH. MEAN	79.4	29.0	4.38	0.0464	0.0752	2.97	0.563
ARITH. STD. DEV	43.5	10.1	0.22	0.0196	0.0228	1.57	0.224
GEOM. MEAN	65.8	27.2	4.37	0.0418	0.0712	2.54	0.516
GEOM. STD. DEV.	2.1	1.5	1.05	1.6562	1.4363	1.84	1.570
1ST QUARTILE	46.5	23.5	4.22	0.0339	0.0646	1.82	0.395
2ND QUARTILE	73.6	27.9	4.34	0.0457	0.0741	3.05	0.530
3RD QUARTILE	108.0	33.1	4.47	0.0582	0.0890	3.90	0.675
VOL. WGT. MEAN	*****	27.2	*****	0.0432	0.0724	2.76	0.502

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
51	51	56	55	53	56	56	57
MAXIMUM	1.160	0.600	1.350	0.185	0.235	0.310	0.905
MINIMUM	0.000	0.020	0.080	0.000	0.000	0.002	0.000
RANGE	1.160	0.580	1.270	0.185	0.235	0.308	0.905
ARITH. MEAN	0.367	0.174	0.491	0.052	0.038	0.065	0.373
ARITH. STD. DEV	0.293	0.116	0.329	0.046	0.041	0.060	0.244
GEOM. MEAN	0.263	0.144	0.391	0.043	0.039	0.045	0.305
GEOM. STD. DEV.	2.719	1.887	2.005	2.994	3.457	2.462	2.103
1ST QUARTILE	0.120	0.110	0.220	0.017	0.005	0.030	0.175
2ND QUARTILE	0.285	0.140	0.375	0.040	0.030	0.047	0.322
3RD QUARTILE	0.530	0.205	0.710	0.072	0.050	0.075	0.502
VOL. WGT. MEAN	0.310	0.160	0.469	0.040	0.040	0.060	0.357

***** : INSUFFICIENT DATA OR NOT APPLICABLE
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ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31,84 TO JAN 7,86

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES :	55	53	53	52	52	53	52
MAXIMUM :	0.1170	22.00	1.20	13.94	364.50	28.42	0.60
MINIMUM :	0.0000	0.50	0.10	1.18	9.09	1.11	0.20
RANGE :	0.1170	21.50	1.10	12.75	355.41	27.31	0.40
ARITH. MEAN :	0.0128	4.75	0.39	5.67	60.45	7.04	0.26
ARITH. STD. DEV. :	0.0202	5.23	0.29	3.45	69.70	4.65	0.11
GEOM. MEAN :	0.0088	2.76	0.29	4.69	37.63	5.69	0.24
GEOM. STD. DEV. :	3.4089	2.97	2.29	1.89	2.61	2.02	1.42
1ST QUARTILE :	0.0015	1.00	0.10	2.56	16.23	3.48	0.20
2ND QUARTILE :	0.0075	3.00	0.30	4.39	36.66	6.44	0.20
3RD QUARTILE :	0.0130	6.00	0.60	7.70	79.54	9.33	0.20
VOL. WGT. MEAN :	0.0172	4.11	0.36	5.11	47.21	5.85	0.25

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES :	52	54	52
MAXIMUM :	558.90	4.29	0.41
MINIMUM :	2.89	0.12	0.01
RANGE :	556.01	4.17	0.40
ARITH. MEAN :	70.08	1.23	0.10
ARITH. STD. DEV. :	90.58	0.95	0.09
GEOM. MEAN :	43.30	0.91	0.07
GEOM. STD. DEV. :	2.61	2.31	2.57
1ST QUARTILE :	21.31	0.55	0.04
2ND QUARTILE :	38.55	1.03	0.08
3RD QUARTILE :	93.90	1.59	0.12
VOL. WGT. MEAN :	54.76	1.14	0.09

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 1.85 TO JAN 2.86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
97	94	93	93	93	93	95	95
MAXIMUM	126.9	59.1	5.26	0.1023	0.1430	6.30	1.230
MINIMUM	12.0	6.6	3.99	0.0055	0.0255	0.60	0.020
RANGE	114.9	52.5	1.27	0.0960	0.1175	5.70	1.210
ARITH. MEAN	60.6	26.0	4.41	0.0441	0.0693	2.40	0.435
ARITH. STD. DEV.	27.0	11.2	0.25	0.0207	0.0238	1.29	0.208
GEOM. MEAN	53.8	23.7	4.41	0.0386	0.0653	2.05	0.376
GEOM. STD. DEV.	1.7	1.6	1.06	1.7709	1.4298	1.79	1.853
1ST QUARTILE	40.0	18.6	4.25	0.0309	0.0537	1.32	0.260
2ND QUARTILE	58.0	23.9	4.38	0.0417	0.0678	2.17	0.420
3RD QUARTILE	76.5	32.2	4.51	0.0556	0.0807	3.35	0.565
VOL. WGT. MEAN	*****	25.8	*****	0.0443	0.0701	2.44	0.431

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
93	95	94	95	95	92	94	96
MAXIMUM	0.700	0.900	1.260	0.245	0.185	0.725	2.800
MINIMUM	0.000	0.000	0.030	0.000	0.000	0.002	0.000
RANGE	0.700	0.900	1.230	0.245	0.185	0.723	2.800
ARITH. MEAN	0.213	0.143	0.386	0.040	0.036	0.069	0.294
ARITH. STD. DEV.	0.164	0.142	0.262	0.040	0.040	0.104	0.334
GEOM. MEAN	0.162	0.102	0.304	0.026	0.027	0.036	0.201
GEOM. STD. DEV.	2.495	2.514	2.069	2.949	3.184	3.268	3.055
1ST QUARTILE	0.090	0.070	0.165	0.015	0.008	0.020	0.103
2ND QUARTILE	0.155	0.110	0.320	0.027	0.027	0.040	0.207
3RD QUARTILE	0.325	0.185	0.575	0.052	0.050	0.080	0.407
VOL. WGT. MEAN	0.205	0.135	0.392	0.036	0.037	0.069	0.321

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 1,85 TO JAN 2,86

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	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	94	91	92	90	89	92	92
MAXIMUM	0.1360	24.00	4.50	26.47	292.10	20.71	1.00
MINIMUM	0.0000	0.50	0.10	1.12	5.73	0.74	0.00
RANGE	0.1360	23.50	4.40	25.35	286.37	19.97	1.00
ARITH. MEAN	0.0122	3.73	0.62	6.32	45.55	6.69	0.26
ARITH. STD. DEV	0.0187	4.06	0.78	4.72	47.52	4.00	0.14
GEOM. MEAN	0.0065	2.40	0.38	5.00	31.99	5.30	0.25
GEOM. STD. DEV.	3.2841	2.61	2.60	1.99	2.30	2.16	1.44
1ST QUANTILE	0.0020	1.00	0.20	3.22	17.11	4.02	0.20
2ND QUANTILE	0.0080	2.00	0.40	5.03	35.40	6.61	0.20
3RD QUANTILE	0.0120	4.00	0.70	8.29	50.06	8.99	0.20
VOL. MGT. MEAN	0.0107	3.48	0.55	6.23	43.32	6.50	0.25

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	90	91	92
MAXIMUM	248.00	15.29	0.76
MINIMUM	9.38	0.15	0.01
RANGE	238.62	15.14	0.75
ARITH. MEAN	46.76	1.69	0.11
ARITH. STD. DEV	40.43	2.00	0.12
GEOM. MEAN	36.26	1.09	0.08
GEOM. STD. DEV.	2.00	2.56	2.24
1ST QUANTILE	21.00	0.49	0.06
2ND QUANTILE	37.62	1.22	0.08
3RD QUANTILE	54.12	1.87	0.12
VOL. MGT. MEAN	44.01	1.52	0.11

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2,85 TO JAN 3,86

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
:	96	95	96	96	97	95	95
MAXIMUM	396.3	28.9	6.90	0.0501	0.0863	3.50	0.880
MINIMUM	5.6	4.1	4.30	0.0001	0.0109	0.35	0.000
RANGE	390.7	24.8	2.60	0.0500	0.0754	3.15	0.880
ARITH. MEAN	68.9	12.1	5.14	0.0127	0.0347	1.16	0.236
ARITH. STD. DEV.	58.3	5.4	0.58	0.0106	0.0138	0.65	0.148
GEOM. MEAN	49.2	11.0	5.11	0.0072	0.0322	1.02	0.203
GEOM. STD. DEV.	2.4	1.5	1.11	3.7861	1.4821	1.64	1.905
1ST QUARTILE	23.3	8.3	4.74	0.0046	0.0234	0.72	0.140
2ND QUARTILE	58.0	10.5	4.97	0.0107	0.0320	0.97	0.210
3RD QUARTILE	95.1	14.6	5.34	0.0182	0.0416	1.40	0.290
VOL. WGT. MEAN	*****	11.1	*****	0.0115	0.0325	1.17	0.204

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	93	95	93	93	93	93	96
MAXIMUM	1.670	3.840	1.180	0.555	0.155	2.200	0.710
MINIMUM	0.050	0.000	0.030	0.002	0.000	0.002	0.000
RANGE	1.620	3.840	1.150	0.553	0.155	2.197	0.710
ARITH. MEAN	0.255	0.267	0.328	0.046	0.034	0.173	0.199
ARITH. STD. DEV.	0.236	0.597	0.212	0.070	0.030	0.362	0.171
GEOM. MEAN	0.197	0.124	0.266	0.025	0.029	0.068	0.163
GEOM. STD. DEV.	1.997	3.443	1.978	3.038	2.728	0.550	3.211
1ST QUARTILE	0.115	0.027	0.180	0.008	0.008	0.030	0.055
2ND QUARTILE	0.200	0.090	0.285	0.027	0.030	0.062	0.157
3RD QUARTILE	0.325	0.190	0.425	0.050	0.050	0.127	0.292
VOL. WGT. MEAN	0.253	0.133	0.336	0.040	0.033	0.089	0.221

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2,85 TO JAN 3,86

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	93	87	87	87	87	87	87
MAXIMUM	0.2430	41.00	4.40	110.30	543.00	22.23	1.40
MINIMUM	0.0005	0.50	0.10	0.63	3.09	0.72	0.20
RANGE	0.2425	40.50	4.30	109.67	539.91	21.51	1.20
ARITH. MEAN	0.0171	3.89	0.44	6.44	59.32	4.76	0.25
ARITH. STD. DEV	0.0275	4.90	0.71	12.36	76.41	4.03	0.17
GEOM. MEAN	0.0090	2.61	0.25	3.99	38.32	3.43	0.23
GEOM. STD. DEV.	3.2677	2.39	2.55	2.32	2.53	2.28	1.43
1ST QUARTILE	0.0025	1.00	0.10	2.30	21.66	1.68	0.20
2ND QUARTILE	0.0100	3.00	0.20	3.83	38.39	3.12	0.20
3RD QUARTILE	0.0190	5.00	0.40	5.96	66.90	6.58	0.20
VOL. WGT. MEAN	0.0125	4.38	0.42	4.64	55.60	3.87	0.25

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	87	87	87
MAXIMUM	249.20	30.17	3.60
MINIMUM	7.93	0.12	0.01
RANGE	241.27	30.05	3.59
ARITH. MEAN	54.81	1.75	0.12
ARITH. STD. DEV	45.09	3.62	0.40
GEOM. MEAN	42.52	0.84	0.05
GEOM. STD. DEV.	2.03	3.08	2.79
1ST QUARTILE	28.05	0.39	0.03
2ND QUARTILE	41.40	0.84	0.05
3RD QUARTILE	67.13	1.62	0.07
VOL. WGT. MEAN	51.41	1.16	0.10

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	52	50	48	48	50	50	50
MINIMUM	150.0	50.6	5.27	0.0977	0.1240	5.70	1.260
RANGE	4.0	7.9	4.01	0.0054	0.0252	0.70	0.140
ARITH. MEAN	146.0	42.7	1.26	0.0924	0.0988	5.00	1.120
ARITH. STD. DEV.	60.6	28.8	4.37	0.0484	0.0756	2.71	0.537
GEOM. MEAN	26.5	9.7	0.24	0.0216	0.0251	1.26	0.232
GEOM. STD. DEV.	53.7	27.1	4.36	0.0429	0.0710	2.41	0.488
1ST QUARTILE	1.8	1.5	1.05	1.7216	1.4529	1.67	1.582
2ND QUARTILE	40.0	21.9	4.18	0.0302	0.0586	1.60	0.380
3RD QUARTILE	59.5	28.9	4.34	0.0462	0.0749	2.68	0.520
VOL. WGT. MEAN	78.6	34.5	4.52	0.0653	0.0926	3.57	0.630
	*****	27.5	*****	0.0459	0.0734	2.62	0.482

1 81 1

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	KJELDAHL AS N MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
MAXIMUM	45	49	49	45	44	47	49
MINIMUM	1.070	0.450	1.270	0.250	0.175	0.270	0.885
RANGE	0.020	0.020	0.120	0.002	0.000	0.005	0.060
ARITH. MEAN	1.050	0.430	1.150	0.248	0.175	0.265	0.825
ARITH. STD. DEV.	0.311	0.143	0.426	0.050	0.035	0.061	0.319
GEOM. MEAN	0.231	0.094	0.257	0.045	0.033	0.057	0.213
GEOM. STD. DEV.	0.237	0.112	0.362	0.034	0.035	0.042	0.258
1ST QUARTILE	2.214	2.193	1.780	2.668	3.020	2.475	1.955
2ND QUARTILE	0.135	0.090	0.220	0.020	0.006	0.025	0.152
3RD QUARTILE	0.245	0.120	0.355	0.040	0.030	0.047	0.243
VOL. WGT. MEAN	0.395	0.180	0.545	0.060	0.052	0.070	0.438
	0.271	0.126	0.383	0.043	0.029	0.054	0.291

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2,85 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	49	49	49	49	49	48	49
MAXIMUM	0.0570	18.00	1.50	31.77	267.20	13.94	0.80
MINIMUM	0.0000	0.50	0.10	1.00	6.00	0.59	0.20
RANGE	0.0570	17.50	1.40	30.76	261.20	13.35	0.60
ARITH. MEAN	0.0065	3.80	0.47	6.15	46.56	5.71	0.25
ARITH. STD. DEV	0.0093	3.56	0.39	5.13	50.92	3.58	0.15
GEOM. MEAN	0.0040	2.59	0.32	4.89	33.19	4.55	0.23
GEOM. STD. DEV.	3.0560	2.50	2.45	1.94	2.19	2.10	1.44
1ST QUARTILE	0.0015	1.00	0.10	3.20	18.36	3.24	0.20
2ND QUARTILE	0.0025	3.00	0.40	4.61	30.59	4.84	0.20
3RD QUARTILE	0.0075	5.00	0.60	7.47	52.25	8.03	0.20
VOL. WGT. MEAN	0.0051	3.48	0.46	5.59	41.71	5.36	0.24

	ALUMINIUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	48	49	48
MAXIMUM	235.00	13.01	0.69
MINIMUM	12.07	0.05	0.01
RANGE	222.93	12.96	0.68
ARITH. MEAN	47.43	1.49	0.11
ARITH. STD. DEV	40.05	2.07	0.12
GEOM. MEAN	37.79	0.89	0.07
GEOM. STD. DEV.	1.90	2.83	2.80
1ST QUARTILE	22.96	0.59	0.04
2ND QUARTILE	36.01	0.95	0.08
3RD QUARTILE	56.59	1.75	0.16
VOL. WGT. MEAN	43.91	1.26	0.11

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31,84 TO DEC 31,85

PAGE : 1

# OF SAMPLES	PRECIP.	CONDUCT.	PH	FREE H+	TOTAL H+	SULPHATE	NITRATE
:	MM	UMHO/CM	LAB	LAB	GRAN	MG/L	AS N
MAXIMUM	230.3	75.3	6.90	0.1318	0.1840	10.40	2.020
MINIMUM	9.4	5.2	3.88	0.0001	0.0243	0.35	0.025
RANGE	220.9	70.1	3.02	0.1317	0.1597	10.05	1.995
ARITH. MEAN	78.8	34.7	4.37	0.0512	0.0810	3.92	0.645
ARITH. STD. DEV	48.0	11.7	0.37	0.0241	0.0281	1.78	0.294
GEOM. MEAN	63.8	32.6	4.36	0.0422	0.0760	3.52	0.580
GEOM. STD. DEV.	2.0	1.5	1.08	2.3488	1.4552	1.63	1.671
1ST QUARTILE	40.5	26.0	4.18	0.0316	0.0597	2.67	0.470
2ND QUARTILE	71.0	35.1	4.26	0.0550	0.0821	3.60	0.580
3RD QUARTILE	105.0	41.6	4.49	0.0646	0.0996	4.77	0.740
VOL. WGT. MEAN	*****	33.4	*****	0.0533	0.0817	3.56	0.561

# OF SAMPLES	CALCIUM	CHLORIDE	KJELDAHL	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
:	MG/L	MG/L	AS N	MG/L	MG/L	MG/L	AS N
MAXIMUM	99	107	105	101	98	101	108
MINIMUM	2.520	5.050	3.270	0.605	0.285	3.350	1.950
RANGE	0.020	0.015	0.080	0.005	0.000	0.008	0.030
ARITH. MEAN	2.500	5.035	3.190	0.600	0.285	3.342	1.920
ARITH. STD. DEV	0.542	0.286	0.645	0.108	0.052	0.108	0.513
GEOM. MEAN	0.439	0.547	0.442	0.101	0.050	0.330	0.330
GEOM. STD. DEV.	0.410	0.192	0.542	0.079	0.038	0.062	0.422
1ST QUARTILE	2.204	2.123	1.790	2.191	2.811	2.255	1.923
2ND QUARTILE	0.260	0.120	0.380	0.045	0.020	0.035	0.272
3RD QUARTILE	0.420	0.185	0.570	0.077	0.040	0.060	0.462
VOL. WGT. MEAN	0.665	0.290	0.720	0.120	0.065	0.108	0.640
	0.411	0.203	0.569	0.076	0.045	0.074	0.453

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31,84 TO DEC 31,85

PAGE : 2

	PHOSPHOR	MANGANESE	NICKEL	ZINC	IRON	LEAD	VANADIUM
	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	104	106	107	107	104	108	108
MAXIMUM	0.1420	30.00	3.00	35.56	385.70	21.45	1.50
MINIMUM	0.0000	0.50	0.10	1.15	6.97	0.62	0.20
RANGE	0.1420	29.50	2.90	34.41	878.72	20.83	1.30
ARITH. MEAN	0.0135	5.55	0.69	9.97	88.96	7.11	0.36
ARITH. STD. DEV.	0.0221	5.23	0.63	7.05	112.43	4.50	0.29
GEOM. MEAN	0.0071	3.77	0.45	7.92	55.79	5.76	0.29
GEOM. STD. DEV.	3.2124	2.54	2.59	2.02	2.57	2.01	1.79
1ST QUARTILE	0.0025	2.00	0.20	5.18	25.15	3.95	0.20
2ND QUARTILE	0.0070	4.50	0.40	8.09	62.85	6.45	0.20
3RD QUARTILE	0.0135	6.50	1.10	12.62	100.42	9.15	0.40
VOL. WGT. MEAN	0.0137	4.29	0.73	8.07	64.40	6.24	0.33

	ALUMINUM	COPPER	CADMIUM
	UG/L	UG/L	UG/L
# OF SAMPLES	103	107	106
MAXIMUM	892.00	9.59	2.27
MINIMUM	9.36	0.12	0.01
RANGE	882.64	9.47	2.26
ARITH. MEAN	83.70	1.58	0.25
ARITH. STD. DEV.	107.17	1.43	0.39
GEOM. MEAN	55.80	1.08	0.12
GEOM. STD. DEV.	2.33	2.56	3.06
1ST QUARTILE	27.92	0.63	0.06
2ND QUARTILE	54.86	1.17	0.10
3RD QUARTILE	100.24	2.10	0.19
VOL. WGT. MEAN	59.10	1.37	0.23

PART V

SUMMARY STATISTICS OF WET DEPOSITION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : ALVINSTON/CUMULATIVE PRECIP. #05

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP.	FREE H+ LAB	TOTAL H+ TO PH8.3	SULPHATE	NITRATE AS N	CALCIUM	CHLORIDE
:	MM	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
MAXIMUM	11	11	0	11	11	11	11
MINIMUM	161.0	11.9351	*****	571.55	85.330	101.400	19.500
RANGE	19.0	0.7210	*****	31.25	15.250	11.000	5.490
ARITH. MEAN	142.0	11.2141	*****	540.30	70.080	90.400	14.010
ARITH. STD. DEV	69.3	3.4647	*****	224.81	36.419	33.590	11.484
GEOM. MEAN	44.6	2.9382	*****	182.15	32.750	25.596	5.390
GEOM. STD. DEV.	57.0	2.7811	*****	2.12	1.614	1.913	1.611
1ST QUARTILE	27.5	1.9226	*****	110.52	21.465	15.005	6.040
2ND QUARTILE	57.0	2.7478	*****	217.12	32.340	24.790	9.300
3RD QUARTILE	88.5	3.3812	*****	249.90	39.315	40.360	17.255
VOL. WGT. MEAN	*****	3.4647	*****	224.81	36.419	33.590	11.484

# OF SAMPLES	KJELDAHL AS N	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N	PHOSPHOR	MANGANESE
:	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
MAXIMUM	11	11	11	11	11	11	11
MINIMUM	53.130	10.400	37.050	9.240	38.640	0.7800	0.5100
RANGE	7.000	1.625	0.465	1.800	4.125	0.0610	0.1000
ARITH. MEAN	46.130	8.775	36.585	7.440	34.515	0.7190	0.4100
ARITH. STD. DEV	27.690	5.035	5.840	3.881	22.010	0.3224	0.3023
GEOM. MEAN	13.321	2.437	10.497	3.441	11.092	0.2405	0.1389
GEOM. STD. DEV.	24.249	4.500	2.647	1.647	18.718	0.2447	0.2668
1ST QUARTILE	1.797	1.675	3.362	1.647	1.944	2.2649	1.7547
2ND QUARTILE	14.475	2.900	0.862	2.037	11.542	0.1155	0.1470
3RD QUARTILE	25.835	4.342	2.465	3.177	19.687	0.2422	0.3135
VOL. WGT. MEAN	35.690	6.000	4.635	4.650	30.305	0.4012	0.4050
	27.690	5.035	5.840	3.881	22.010	0.3224	0.3023

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : ALVINSTON/CUMULATIVE PRECIP. #05

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.1449	0.839	9.0090	0.7459	0.037	10.569	0.1255
MINIMUM	0.0061	0.169	1.5551	0.0811	0.004	1.895	0.0347
RANGE	0.1388	0.670	7.4539	0.6649	0.033	8.674	0.0908
ARITH. MEAN	0.0405	0.465	4.1516	0.3108	0.018	4.301	0.0700
ARITH. STD. DEV.	0.0396	0.223	2.4661	0.1765	0.010	2.638	0.0285
GEOM. MEAN	0.0278	0.411	3.5742	0.2692	0.015	3.709	0.0649
GEOM. STD. DEV.	2.5115	1.719	1.7648	1.7920	1.909	1.743	1.5104
1ST QUARTILE	0.0122	0.227	2.1433	0.1762	0.010	2.134	0.0411
2ND QUARTILE	0.0259	0.446	3.2083	0.2745	0.014	3.003	0.0603
3RD QUARTILE	0.0476	0.588	5.1319	0.3385	0.023	5.819	0.0876
VOL. WGT. MEAN	0.0405	0.465	4.1516	0.3108	0.018	4.301	0.0700

CADMIUM

	MG/MM#2
# OF SAMPLES	11
MAXIMUM	0.11424
MINIMUM	0.00054
RANGE	0.11370
ARITH. MEAN	0.02495
ARITH. STD. DEV.	0.04147
GEOM. MEAN	0.00825
GEOM. STD. DEV.	4.76699
1ST QUARTILE	0.00280
2ND QUARTILE	0.00665
3RD QUARTILE	0.01237
VOL. WGT. MEAN	0.02495

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : AZURE LAKE/CUMULATIVE PRECIP. #26

PERIOD OF REPORT : JAN 29, 85 TO JAN 2, 86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH0.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
12	12	12	0	12	12	12	12
MAXIMUM	109.0	5.9351	*****	263.90	35.000	21.800	10.281
MINIMUM	44.7	1.0501	*****	40.23	10.000	0.000	0.700
RANGE	64.3	4.8850	*****	223.67	25.000	21.800	9.581
ARITH. MEAN	60.1	2.6453	*****	131.04	21.777	9.410	5.043
ARITH. STD. DEV	20.5	1.2985	*****	71.05	8.166	6.247	3.020
GEOM. MEAN	65.6	2.4047	*****	112.54	20.419	7.419	3.890
GEOM. STD. DEV.	1.3	1.5670	*****	1.82	1.458	1.760	2.353
1ST QUANTILE	52.5	1.9486	*****	74.14	16.210	4.992	1.774
2ND QUANTILE	67.0	2.3992	*****	122.65	18.984	7.635	6.020
3RD QUANTILE	72.0	2.7312	*****	177.65	29.020	14.750	7.070
VOL. WGT. MEAN	*****	2.6453	*****	131.04	21.777	9.410	5.043

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
12	12	12	12	12	12	12	12
MAXIMUM	41.420	2.725	3.500	7.152	33.790	1.2000	0.8120
MINIMUM	1.341	0.170	0.000	0.137	0.000	0.0700	0.0275
RANGE	40.079	2.555	3.500	7.014	33.790	1.1300	0.7845
ARITH. MEAN	19.096	1.486	1.644	1.770	12.667	0.5071	0.1812
ARITH. STD. DEV	11.682	0.907	1.421	2.031	9.906	0.4144	0.2169
GEOM. MEAN	14.228	1.098	1.036	1.010	6.856	0.3390	0.1102
GEOM. STD. DEV.	2.611	2.600	3.523	3.107	2.143	2.7551	2.7847
1ST QUANTILE	7.920	0.627	0.199	0.472	4.240	0.1367	0.0473
2ND QUANTILE	21.740	1.557	1.530	0.700	11.425	0.3762	0.1180
3RD QUANTILE	25.550	2.265	3.200	2.681	20.685	0.9140	0.2200
VOL. WGT. MEAN	19.096	1.486	1.644	1.770	12.667	0.5071	0.1812

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : AZURE LAKE/CUMULATIVE PRECIP. #26

PERIOD OF REPORT : JAN 29, 85 TO JAN 2, 86

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# OF SAMPLES	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
MAXIMUM	12	12	12	12	12	12	12
MINIMUM	0.1160	0.762	7.0122	0.7521	0.028	6.914	0.2351
RANGE	0.0048	0.102	0.3153	0.0890	0.009	0.590	0.0115
ARITH. MEAN	0.1112	0.660	6.6969	0.6631	0.019	6.323	0.2237
ARITH. STD. DEV.	0.0335	0.292	2.3219	0.3391	0.016	2.428	0.1066
GEOM. MEAN	0.0279	0.186	1.8223	0.1980	0.007	1.623	0.0727
GEOM. STD. DEV.	0.0263	0.246	1.7171	0.2842	0.015	2.050	0.0811
1ST QUARTILE	2.1005	1.833	2.3906	1.9164	1.492	1.834	2.3744
2ND QUARTILE	0.0191	0.147	1.1030	0.1615	0.010	1.473	0.0507
3RD QUARTILE	0.0290	0.259	2.0850	0.3101	0.014	2.004	0.0910
VOL. WGT. MEAN	0.0340	0.389	3.0734	0.4871	0.021	2.806	0.1446
	0.0335	0.292	2.3219	0.3391	0.016	2.428	0.1066

# OF SAMPLES	CADMIUM
	MG/MM#2
MAXIMUM	12
MINIMUM	0.00670
RANGE	0.00220
ARITH. MEAN	0.00650
ARITH. STD. DEV.	0.00449
GEOM. MEAN	0.00188
GEOM. STD. DEV.	0.00416
1ST QUARTILE	1.49106
2ND QUARTILE	0.00333
3RD QUARTILE	0.00411
VOL. WGT. MEAN	0.00559
	0.00449

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BEAR ISLAND/CUMULATIVE PRECIP. #24

PERIOD OF REPORT : JAN 2, 85 TO OCT 8, 85

PAGE : 1

OF SAMPLES : 7
MAXIMUM : 95.0
MINIMUM : 18.0
RANGE : 77.0
ARITH. MEAN : 52.6
ARITH. STD. DEV : 28.6
GEOM. MEAN : 45.2
GEOM. STD. DEV. : 1.9
1ST QUANTILE : 22.6
2ND QUANTILE : 43.5
3RD QUANTILE : 70.5
VOL. WGT. MEAN : *****

PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH6.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
7	6.1337	0	277.20	33.640	16.240	10.500
95.0	0.8615	*****	15.30	7.859	0.375	1.626
18.0	5.2722	*****	261.90	25.781	15.865	8.874
77.0	2.5677	*****	124.16	21.648	6.459	6.531
52.6	1.8188	*****	88.68	10.729	6.260	3.396
28.6	2.0937	*****	91.79	18.903	3.490	5.554
45.2	1.9946	*****	2.68	1.842	4.384	2.000
1.9	1.0088	*****	44.91	8.969	1.087	2.883
22.6	1.8988	*****	116.47	24.155	3.881	6.530
43.5	3.0126	*****	142.10	28.860	6.941	8.560
70.5	2.5677	*****	143.45	25.010	6.958	7.545

KJELDAHL
AS N
MG/MM#2

MAGNESIUM
MG/MM#2

POTASSIUM
MG/MM#2

SODIUM
MG/MM#2

AMMONIUM
AS N
MG/MM#2

PHOSPHOR
MG/MM#2

MANGANESE
MG/MM#2

OF SAMPLES : 6
MAXIMUM : 83.160
MINIMUM : 1.980
RANGE : 81.180
ARITH. MEAN : 24.621
ARITH. STD. DEV : 29.392
GEOM. MEAN : 14.318
GEOM. STD. DEV. : 3.351
1ST QUANTILE : 5.865
2ND QUANTILE : 16.269
3RD QUANTILE : 18.560
VOL. WGT. MEAN : 28.445

PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH6.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
6	4.785	10.230	4.620	266.000	4.4220	0.3960
83.160	0.135	0.540	0.540	1.260	0.0360	0.0360
1.980	4.650	9.690	4.080	264.740	4.3860	0.3600
81.180	1.942	3.938	2.768	50.689	1.7532	0.1463
24.621	1.955	3.954	1.471	96.326	1.9511	0.1431
29.392	1.047	2.423	2.288	13.721	0.5910	0.1061
14.318	3.953	3.234	2.179	5.597	7.5705	2.3883
3.351	0.255	0.832	1.218	2.877	0.0555	0.0555
5.865	1.850	1.850	2.900	8.935	1.0212	0.0917
16.269	2.705	3.897	3.815	32.600	2.6680	0.1122
18.560	2.244	4.242	3.198	50.689	2.0255	0.1576

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BEAR ISLAND/CUMULATIVE PRECIP. #24

PERIOD OF REPORT : JAN 2, 85 TO OCT 8, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES :	6	6	6	6	6	6	6
MAXIMUM :	0.0667	1.022	6.6264	0.7064	0.019	6.597	0.2043
MINIMUM :	0.0163	0.126	0.7935	0.0419	0.004	0.941	0.0139
RANGE :	0.0504	0.897	5.8329	0.6646	0.015	5.656	0.1904
ARITH. MEAN :	0.0351	0.466	2.2864	0.3315	0.012	2.385	0.0823
ARITH. STD. DEV. :	0.0201	0.355	2.1939	0.2354	0.005	2.186	0.0648
GEOM. MEAN :	0.0308	0.360	1.7203	0.2378	0.011	1.822	0.0624
GEOM. STD. DEV. :	1.7301	2.244	2.1610	2.8112	1.785	2.118	2.4019
1ST QUARTILE :	0.0189	0.156	0.8435	0.0789	0.008	0.978	0.0333
2ND QUARTILE :	0.0266	0.349	1.6064	0.3677	0.012	1.425	0.0669
3RD QUARTILE :	0.0414	0.586	2.0259	0.3812	0.014	2.261	0.0796
VOL. WGT. MEAN :	0.0405	0.539	2.6415	0.3830	0.014	2.756	0.0950

CADMIUM

	MG/M**2
# OF SAMPLES :	6
MAXIMUM :	0.00990
MINIMUM :	0.00234
RANGE :	0.00756
ARITH. MEAN :	0.00574
ARITH. STD. DEV. :	0.00294
GEOM. MEAN :	0.00509
GEOM. STD. DEV. :	1.73475
1ST QUARTILE :	0.00293
2ND QUARTILE :	0.00522
3RD QUARTILE :	0.00731
VOL. WGT. MEAN :	0.00663

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CAMPBELLFORD/CUMULATIVE PRECIP. #13

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP.	FREE H+ LAB	TOTAL H+ TO PH8.3	SULPHATE	NITRATE AS N	CALCIUM	CHLORIDE
MM	MM	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
11	11	10	0	10	10	9	10
MAXIMUM	165.0	4.6442	*****	750.75	85.800	168.300	23.100
MINIMUM	20.0	0.6517	*****	63.55	21.870	10.230	2.025
RANGE	145.0	3.9925	*****	687.20	63.930	158.070	21.075
ARITH. MEAN	68.8	2.7731	*****	258.53	42.021	47.468	12.454
ARITH. STD. DEV.	45.5	1.0938	*****	210.28	20.945	51.215	6.699
GEOM. MEAN	56.0	2.5078	*****	195.77	38.036	30.770	10.336
GEOM. STD. DEV.	2.0	1.7077	*****	2.21	1.581	2.620	2.072
1ST QUARTILE	28.0	2.1859	*****	98.77	26.025	12.485	6.625
2ND QUARTILE	55.3	2.6486	*****	188.62	31.675	24.000	12.930
3RD QUARTILE	84.0	3.1826	*****	326.64	52.382	46.966	14.902
VOL. WGT. MEAN	*****	2.8487	*****	265.58	43.167	45.589	12.794

# OF SAMPLES	KJELDAHL AS N	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N	PHOSPHOR	MANGANESE
MM	MM	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
10	10	10	10	10	10	10	9
MAXIMUM	169.950	10.725	38.775	9.610	132.000	14.0250	1.1550
MINIMUM	11.200	0.600	0.000	0.412	4.805	0.1600	0.0400
RANGE	158.750	10.125	38.775	9.197	127.195	13.8650	1.1150
ARITH. MEAN	51.496	4.309	5.878	3.925	36.659	2.1898	0.4490
ARITH. STD. DEV.	50.798	3.406	11.831	3.023	38.812	4.2640	0.3996
GEOM. MEAN	34.652	2.889	2.086	2.774	22.792	0.7526	0.2736
GEOM. STD. DEV.	2.530	2.856	4.005	2.656	2.861	4.0761	3.2207
1ST QUARTILE	13.480	0.924	0.566	1.175	8.447	0.2012	0.1005
2ND QUARTILE	30.525	3.875	1.675	3.500	25.962	0.7160	0.2250
3RD QUARTILE	64.188	6.431	2.728	4.691	45.155	1.1224	0.6747
VOL. WGT. MEAN	52.900	4.426	6.038	4.032	37.658	2.2495	0.4353

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CAMPBELLFORD/CUMULATIVE PRECIP. #13

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	9	9	9	9	9	9	9
MAXIMUM	0.1320	1.728	10.2830	0.8886	0.035	19.561	0.2408
MINIMUM	0.0025	0.117	0.9898	0.1386	0.004	1.288	0.0197
RANGE	0.1295	1.610	9.2932	0.7500	0.031	18.273	0.2211
ARITH. MEAN	0.0336	0.524	5.2637	0.4579	0.018	6.179	0.0646
ARITH. STD. DEV.	0.0407	0.503	3.7533	0.2529	0.011	6.376	0.0684
GEOM. MEAN	0.0192	0.381	3.7880	0.3941	0.014	3.906	0.0477
GEOM. STD. DEV.	3.1681	2.269	2.5616	1.8288	2.085	2.736	2.1070
1ST QUARTILE	0.0100	0.202	1.5119	0.2513	0.007	1.667	0.0263
2ND QUARTILE	0.0165	0.379	4.3108	0.3540	0.015	2.220	0.0408
3RD QUARTILE	0.0266	0.410	7.4235	0.5592	0.021	6.979	0.0554
VOL. MGT. MEAN	0.0326	0.508	5.1028	0.4439	0.017	5.990	0.0627

CADMIUM

	MG/MM#2
# OF SAMPLES	9
MAXIMUM	0.03072
MINIMUM	0.00180
RANGE	0.02892
ARITH. MEAN	0.01294
ARITH. STD. DEV.	0.01063
GEOM. MEAN	0.00854
GEOM. STD. DEV.	2.86287
1ST QUARTILE	0.00330
2ND QUARTILE	0.00890
3RD QUARTILE	0.01740
VOL. MGT. MEAN	0.01255

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CLOYNE/CUMULATIVE PRECIP. #14

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH0.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
13	13	13	0	13	13	13	13
MAXIMUM	150.0	7.6929	*****	435.00	57.330	48.150	19.110
MINIMUM	22.0	0.8189	*****	29.70	24.300	1.820	3.000
RANGE	128.0	6.8741	*****	405.30	33.030	46.330	16.110
ARITH. MEAN	72.0	3.8548	*****	197.78	36.037	16.099	8.105
ARITH. STD. DEV.	33.3	1.8760	*****	106.56	9.203	13.038	4.314
GEOM. MEAN	64.9	3.4015	*****	167.19	35.002	11.325	7.157
GEOM. STD. DEV.	1.6	1.7543	*****	1.96	1.285	2.580	1.687
1ST QUARTILE	48.0	3.0288	*****	134.37	27.160	5.822	4.225
2ND QUARTILE	63.5	3.4097	*****	174.32	35.408	13.210	7.200
3RD QUARTILE	85.5	3.6348	*****	224.00	39.745	20.460	9.800
VOL. WGT. MEAN	*****	3.8548	*****	197.78	36.037	16.099	8.105

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
13	13	13	13	13	13	13	12
MAXIMUM	44.550	4.675	4.400	8.190	36.500	1.1000	0.8800
MINIMUM	9.240	0.237	0.000	0.412	3.520	0.0390	0.0475
RANGE	35.310	4.437	4.400	7.777	34.980	1.0610	0.8325
ARITH. MEAN	24.360	1.935	1.614	3.132	20.027	0.3100	0.2038
ARITH. STD. DEV.	10.469	1.395	1.264	2.489	10.759	0.3004	0.2291
GEOM. MEAN	22.157	1.416	1.250	2.175	16.874	0.1974	0.1421
GEOM. STD. DEV.	1.598	2.457	2.465	2.592	1.969	2.8172	2.2633
1ST QUARTILE	14.820	0.724	0.443	0.962	10.292	0.0912	0.0905
2ND QUARTILE	21.675	1.562	1.692	2.112	16.807	0.1700	0.1700
3RD QUARTILE	31.260	2.570	2.180	4.515	26.925	0.4075	0.2240
VOL. WGT. MEAN	24.360	1.935	1.614	3.132	20.027	0.3100	0.1927

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CLOYNE/CUMULATIVE PRECIP. #14

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.1350	0.571	14.1185	0.7669	0.030	12.925	0.1282
MINIMUM	0.0040	0.123	0.7200	0.1234	0.008	1.098	0.0130
RANGE	0.1310	0.448	13.3985	0.6435	0.022	11.827	0.1152
ARITH. MEAN	0.0313	0.336	3.1951	0.3250	0.015	3.133	0.0599
ARITH. STD. DEV.	0.0372	0.116	3.5946	0.2083	0.006	3.210	0.0341
GEOM. MEAN	0.0186	0.314	2.2956	0.2771	0.014	2.415	0.0494
GEOM. STD. DEV.	2.8831	1.495	2.1627	1.7711	1.471	1.939	2.0349
1ST QUANTILE	0.0075	0.296	1.2430	0.1794	0.011	1.536	0.0335
2ND QUANTILE	0.0193	0.324	2.4100	0.2651	0.015	2.351	0.0592
3RD QUANTILE	0.0379	0.400	2.8941	0.3656	0.019	3.069	0.0852
VOL. WGT. MEAN	0.0295	0.317	3.0202	0.3072	0.014	2.962	0.0566

CADMIUM

	MG/M**2
# OF SAMPLES	12
MAXIMUM	0.01126
MINIMUM	0.00080
RANGE	0.01046
ARITH. MEAN	0.00442
ARITH. STD. DEV.	0.00309
GEOM. MEAN	0.00333
GEOM. STD. DEV.	2.34230
1ST QUANTILE	0.00151
2ND QUANTILE	0.00489
3RD QUANTILE	0.00573
VOL. WGT. MEAN	0.00418

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : COLCHESTER/CUMULATIVE PRECIP. 801

PERIOD OF REPORT : JAN 1, 85 TO DEC 31, 85

PAGE : 1

	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
# OF SAMPLES	13	13	0	13	13	12	13
MAXIMUM	230.3	9.6485	*****	1427.86	170.422	142.786	52.969
MINIMUM	16.0	0.8206	*****	48.05	11.040	10.360	4.080
RANGE	214.3	8.8279	*****	1379.81	159.382	132.426	48.889
ARITH. MEAN	84.6	4.4662	*****	350.47	46.714	35.897	22.236
ARITH. STD. DEV.	56.2	2.9801	*****	354.49	40.704	36.768	14.853
GEOM. MEAN	68.2	3.4372	*****	246.06	36.468	26.848	17.658
GEOM. STD. DEV.	2.1	2.2647	*****	2.42	2.030	2.050	2.132
1ST QUANTILE	35.5	1.9688	*****	151.45	22.700	17.510	12.525
2ND QUANTILE	71.5	3.5674	*****	272.65	34.490	24.465	17.545
3RD QUANTILE	107.5	5.7836	*****	311.10	52.520	31.910	27.010
VOL. WGT. MEAN	*****	4.4662	*****	350.47	46.714	36.561	22.236

	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
# OF SAMPLES	12	12	12	12	13	12	13
MAXIMUM	419.146	31.090	44.908	21.878	340.844	32.7026	0.9212
MINIMUM	11.360	2.775	0.000	2.160	3.875	0.0740	0.0800
RANGE	407.786	28.315	44.908	19.718	336.969	32.6286	0.8412
ARITH. MEAN	77.419	7.429	7.004	7.343	51.890	3.3270	0.2848
ARITH. STD. DEV.	112.330	7.673	12.205	5.761	88.052	9.2756	0.2260
GEOM. MEAN	45.943	5.805	3.670	5.734	27.404	0.6113	0.2252
GEOM. STD. DEV.	2.615	1.872	2.638	2.068	2.940	4.8046	2.0065
1ST QUANTILE	32.855	3.980	2.107	2.860	13.425	0.2217	0.1190
2ND QUANTILE	43.740	5.385	3.435	6.045	33.575	0.4975	0.2140
3RD QUANTILE	54.105	6.842	5.480	9.287	40.482	0.9540	0.3525
VOL. WGT. MEAN	73.537	7.566	7.133	7.479	51.890	3.1602	0.2848

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : COLCHESTER/CUMULATIVE PRECIP. #01

PERIOD OF REPORT : JAN 1, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	13	13	13	13	13	13	12
MAXIMUM	0.5988	3.404	14.0667	1.1791	0.046	17.853	0.8420
MINIMUM	0.0080	0.161	1.6091	0.0758	0.003	1.393	0.0074
RANGE	0.5908	3.242	12.4576	1.1033	0.043	16.460	0.8346
ARITH. MEAN	0.0887	0.897	4.6797	0.4215	0.023	5.742	0.1792
ARITH. STD. DEV.	0.1595	0.797	3.6158	0.3323	0.012	4.699	0.2619
GEOM. MEAN	0.0413	0.712	3.7161	0.3129	0.019	4.351	0.0831
GEOM. STD. DEV.	3.1198	1.971	1.9885	2.2962	2.062	2.163	3.5698
1ST QUANTILE	0.0159	0.521	1.8892	0.1800	0.013	2.479	0.0484
2ND QUANTILE	0.0375	0.717	3.3708	0.2791	0.021	3.361	0.0649
3RD QUANTILE	0.0524	0.802	5.2573	0.5241	0.026	6.919	0.1562
VOL. WGT. MEAN	0.0887	0.897	4.6797	0.4215	0.023	5.742	0.1678

CADMIUM

	MG/M**2
# OF SAMPLES	13
MAXIMUM	0.04876
MINIMUM	0.00116
RANGE	0.04760
ARITH. MEAN	0.01076
ARITH. STD. DEV.	0.01284
GEOM. MEAN	0.00703
GEOM. STD. DEV.	2.49516
1ST QUANTILE	0.00442
2ND QUANTILE	0.00636
3RD QUANTILE	0.00863
VOL. WGT. MEAN	0.01076

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : COLDWATER/CUMULATIVE PRECIP. #12

PERIOD OF REPORT : DEC 31, 84 TO JAN 3, 86

PAGE : 1

		PRECIP.	FREE H+ LAB	TOTAL H+ TO PH8.3	SULPHATE	NITRATE AS N	CALCIUM	CHLORIDE
		MM	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	:	13	13	0	13	13	13	13
MAXIMUM	:	243.0	6.8487	*****	826.20	89.910	37.296	36.600
MINIMUM	:	29.0	0.8736	*****	38.50	9.900	7.140	1.132
RANGE	:	214.0	5.9749	*****	787.70	80.010	30.156	35.468
ARITH. MEAN	:	84.2	2.7971	*****	204.78	35.444	24.284	13.356
ARITH. STD. DEV.	:	54.6	1.7606	*****	197.20	20.058	12.343	9.977
GEOM. MEAN	:	72.8	2.3470	*****	157.28	30.871	20.613	9.770
GEOM. STD. DEV.	:	1.7	1.8599	*****	2.04	1.749	1.906	2.517
1ST QUANTILE	:	52.3	1.2888	*****	114.43	23.184	10.770	5.952
2ND QUANTILE	:	59.0	2.3787	*****	132.70	30.774	23.745	9.975
3RD QUANTILE	:	100.0	2.9021	*****	221.52	39.060	35.999	16.735
VOL. WGT. MEAN	:	*****	2.7971	*****	204.78	35.444	24.284	13.356

		KJELDAHL AS N	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N	PHOSPHOR	MANGANESE
		MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	:	13	13	13	13	13	13	12
MAXIMUM	:	247.860	7.290	25.515	15.555	182.250	28.4310	1.4580
MINIMUM	:	11.520	0.000	0.000	0.290	6.120	0.0720	0.0510
RANGE	:	236.340	7.290	25.515	15.265	176.130	28.3590	1.4070
ARITH. MEAN	:	43.990	3.533	3.756	5.457	32.808	2.9818	0.3490
ARITH. STD. DEV.	:	62.302	2.469	6.797	4.433	46.313	7.6961	0.4067
GEOM. MEAN	:	29.258	2.694	1.558	3.459	20.520	0.6895	0.2177
GEOM. STD. DEV.	:	2.197	2.358	4.082	3.225	2.450	4.9219	2.6526
1ST QUANTILE	:	16.310	1.495	0.325	1.860	10.110	0.2870	0.1040
2ND QUANTILE	:	26.800	2.915	1.705	3.648	17.975	0.6736	0.2010
3RD QUANTILE	:	34.931	4.987	2.839	7.420	28.767	0.9410	0.3990
VOL. WGT. MEAN	:	43.990	3.533	3.756	5.457	32.808	2.9818	0.3581

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : COLDWATER/CUMULATIVE PRECIP. #12

PERIOD OF REPORT : DEC 31, 84 TO JAN 3, 86

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/HH#2	MG/HH#2	MG/HH#2	MG/HH#2	MG/HH#2	MG/HH#2	MG/HH#2
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.0342	0.842	20.6307	0.8174	0.049	14.535	0.4437
MINIMUM	0.0048	0.088	0.7138	0.1976	0.006	1.022	0.0150
RANGE	0.0294	0.754	19.9169	0.6198	0.043	13.513	0.4287
ARITH. MEAN	0.0194	0.435	4.6782	0.4495	0.020	4.814	0.1306
ARITH. STD. DEV.	0.0097	0.274	5.5277	0.1948	0.012	4.688	0.1496
GEOM. MEAN	0.0166	0.343	3.0034	0.4101	0.017	3.238	0.0760
GEOM. STD. DEV.	1.9009	2.169	2.5486	1.5800	1.846	2.493	2.9609
1ST QUARTILE	0.0122	0.204	1.5703	0.2940	0.010	1.601	0.0382
2ND QUARTILE	0.0205	0.392	2.7676	0.4328	0.020	2.982	0.0783
3RD QUARTILE	0.0268	0.696	5.4996	0.5924	0.026	6.844	0.1498
VOL. MGT. MEAN	0.0199	0.446	4.8006	0.4613	0.021	4.940	0.1340

CADMIUM

	MG/HH#2
# OF SAMPLES	11
MAXIMUM	0.01159
MINIMUM	0.00087
RANGE	0.01072
ARITH. MEAN	0.00565
ARITH. STD. DEV.	0.00276
GEOM. MEAN	0.00479
GEOM. STD. DEV.	2.01364
1ST QUARTILE	0.00345
2ND QUARTILE	0.00573
3RD QUARTILE	0.00663
VOL. MGT. MEAN	0.00564

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DALHOUSIE HILLS/CUMULATIVE PRECIP. #16

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

PRECIP.		FREE H+ LAB		TOTAL H+ TO PH8.3		SULPHATE		NITRATE AS N		CALCIUM		CHLORIDE	
MM		MG/M**2		MG/M**2		MG/M**2		MG/M**2		MG/M**2		MG/M**2	
# OF SAMPLES	: 13	11		0		12		12		10		11	
MAXIMUM	: 91.0	4.8848		*****		362.49		58.520		36.400		17.710	
MINIMUM	: 20.0	0.4243		*****		41.80		10.500		5.530		4.900	
RANGE	: 71.0	4.4606		*****		320.69		48.020		30.870		12.810	
ARITH. MEAN	: 60.6	2.3154		*****		166.32		28.868		18.898		9.519	
ARITH. STD. DEV.	: 23.2	1.6185		*****		102.38		15.138		9.111		4.122	
GEOM. MEAN	: 55.6	1.7761		*****		138.15		25.322		16.802		8.850	
GEOM. STD. DEV.	: 1.6	2.2419		*****		1.94		1.727		1.713		1.472	
1ST QUARTILE	: 36.5	0.8539		*****		88.25		18.410		11.750		7.155	
2ND QUARTILE	: 63.5	1.4517		*****		154.42		23.965		17.555		7.520	
3RD QUARTILE	: 78.0	3.4713		*****		195.82		41.335		22.670		10.320	
VOL. WGT. MEAN	: *****	2.2593		*****		157.52		27.341		18.362		9.285	

KJELDAHL AS N		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		PHOSPHOR		MANGANESE	
MG/M**2		MG/M**2		MG/M**2		MG/M**2		MG/M**2		MG/M**2		MG/M**2	
# OF SAMPLES	: 11	10		9		11		11		11		12	
MAXIMUM	: 44.450	5.600		5.460		18.124		38.000		1.9950		0.6744	
MINIMUM	: 9.500	0.395		0.197		1.225		5.510		0.0000		0.0375	
RANGE	: 34.950	5.205		5.262		16.899		32.490		1.9950		0.6369	
ARITH. MEAN	: 28.476	2.918		2.816		4.854		19.968		0.4629		0.3304	
ARITH. STD. DEV.	: 12.834	1.622		1.907		4.774		10.343		0.5576		0.2152	
GEOM. MEAN	: 25.170	2.401		1.994		3.584		17.133		0.3658		0.2478	
GEOM. STD. DEV.	: 1.754	2.132		2.899		2.166		1.868		2.4973		2.4456	
1ST QUARTILE	: 12.755	1.635		1.385		1.842		9.112		0.1047		0.1150	
2ND QUARTILE	: 29.865	2.780		2.065		2.955		17.712		0.2102		0.3420	
3RD QUARTILE	: 39.120	3.132		3.862		5.192		27.895		0.5905		0.4710	
VOL. WGT. MEAN	: 27.775	2.835		2.651		4.630		19.476		0.4515		0.3129	

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DALHOUSIE MILLS/CUMULATIVE PRECIP. #16

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	12	12	12	12	12	11	12
MAXIMUM	0.1183	0.871	9.3520	1.0495	0.054	7.994	0.4553
MINIMUM	0.0035	0.157	0.5858	0.1315	0.007	1.163	0.0113
RANGE	0.1148	0.714	8.7662	0.9180	0.047	6.831	0.4440
ARITH. MEAN	0.0405	0.390	2.7756	0.4620	0.019	3.483	0.1126
ARITH. STD. DEV	0.0320	0.215	2.6167	0.3033	0.013	2.241	0.1247
GEOM. MEAN	0.0280	0.339	1.9936	0.3761	0.016	2.887	0.0666
GEOM. STD. DEV.	2.7674	1.746	2.2689	1.9796	1.766	1.907	3.0806
1ST QUARTILE	0.0139	0.199	1.0673	0.2367	0.013	1.543	0.0364
2ND QUARTILE	0.0381	0.393	1.7533	0.3792	0.016	2.570	0.0638
3RD QUARTILE	0.0580	0.513	3.7017	0.6573	0.018	5.086	0.1546
VOL. WGT. MEAN	0.0384	0.369	2.6288	0.4376	0.018	3.168	0.1066

	CADMIUM
	MG/M**2
# OF SAMPLES	12
MAXIMUM	0.02023
MINIMUM	0.00035
RANGE	0.01988
ARITH. MEAN	0.00894
ARITH. STD. DEV	0.00596
GEOM. MEAN	0.00593
GEOM. STD. DEV.	3.36126
1ST QUARTILE	0.00518
2ND QUARTILE	0.00855
3RD QUARTILE	0.01311
VOL. WGT. MEAN	0.00847

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORION/CUMULATIVE PRECIP. #31

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH6.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
13	13	13	0	13	13	13	13
MAXIMUM	187.0	2.7659	*****	199.87	36.890	39.270	7.398
MINIMUM	14.1	0.0221	*****	9.87	4.158	0.846	0.000
RANGE	172.9	2.7439	*****	190.00	32.732	38.424	7.398
ARITH. MEAN	69.4	1.1091	*****	91.97	15.758	14.259	2.847
ARITH. STD. DEV.	50.6	0.8654	*****	69.81	10.066	13.004	2.005
GEOM. MEAN	51.9	0.6676	*****	60.22	12.661	8.769	2.557
GEOM. STD. DEV.	2.3	3.8387	*****	3.01	2.073	3.124	1.582
1ST QUARTILE	20.9	0.3685	*****	18.29	6.644	4.471	1.614
2ND QUARTILE	60.0	0.9404	*****	81.13	14.716	7.525	2.593
3RD QUARTILE	91.8	1.5003	*****	126.89	19.440	19.971	3.479
VOL. WGT. MEAN	*****	1.0298	*****	85.40	14.632	13.240	2.643

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
13	13	13	13	13	13	13	13
MAXIMUM	73.780	6.545	6.545	8.631	54.145	1.1900	0.8330
MINIMUM	1.974	0.106	0.000	0.769	0.493	0.1092	0.0141
RANGE	71.806	6.439	6.545	7.862	53.651	1.0808	0.8189
ARITH. MEAN	23.175	2.035	1.455	2.798	17.523	0.5594	0.2031
ARITH. STD. DEV.	21.141	2.175	1.906	2.054	16.898	0.3474	0.2510
GEOM. MEAN	14.287	1.034	0.832	2.292	8.437	0.4485	0.1070
GEOM. STD. DEV.	3.164	3.913	3.964	1.916	4.744	2.1084	3.3019
1ST QUARTILE	5.632	0.388	0.119	1.805	3.473	0.2711	0.0434
2ND QUARTILE	15.991	1.024	0.426	2.100	10.712	0.4317	0.0831
3RD QUARTILE	28.913	2.344	2.127	2.777	24.995	0.7910	0.1895
VOL. WGT. MEAN	21.520	1.890	1.351	2.598	16.271	0.5195	0.1886

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORION/CUMULATIVE PRECIP. #31

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.0410	0.631	8.1682	0.4157	0.037	9.140	0.5043
MINIMUM	0.0019	0.035	0.2665	0.0280	0.003	0.429	0.0113
RANGE	0.0391	0.596	7.9017	0.3877	0.035	8.711	0.4930
ARITH. MEAN	0.0145	0.275	2.4535	0.2325	0.014	2.529	0.0972
ARITH. STD. DEV.	0.0132	0.196	2.3567	0.1243	0.010	2.406	0.1406
GEOM. MEAN	0.0096	0.211	1.6044	0.1914	0.010	1.851	0.0436
GEOM. STD. DEV.	2.6697	2.245	2.7039	2.1083	2.333	2.210	3.6150
1ST QUARTILE	0.0048	0.142	0.7179	0.1381	0.004	1.142	0.0133
2ND QUARTILE	0.0067	0.182	1.6576	0.1909	0.012	1.520	0.0231
3RD QUARTILE	0.0212	0.345	2.8564	0.3314	0.018	2.204	0.1040
VOL. MGT. MEAN	0.0135	0.264	2.2782	0.2159	0.013	2.349	0.0903

CADMIUM

	MG/M**2
# OF SAMPLES	13
MAXIMUM	0.01747
MINIMUM	0.00023
RANGE	0.01724
ARITH. MEAN	0.00382
ARITH. STD. DEV.	0.00463
GEOM. MEAN	0.00201
GEOM. STD. DEV.	3.53399
1ST QUARTILE	0.00059
2ND QUARTILE	0.00266
3RD QUARTILE	0.00443
VOL. MGT. MEAN	0.00355

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/CUMULATIVE PRECIP. #20

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH0.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
MAXIMUM	13	11	0	12	12	11	12
MINIMUM	136.0	8.0083	*****	476.00	64.680	41.910	17.780
RANGE	42.0	1.2004	*****	36.00	25.760	0.970	5.400
ARITH. MEAN	94.0	6.8079	*****	440.00	38.920	40.940	12.380
ARITH. STD. DEV	82.3	3.8015	*****	200.25	40.168	20.199	10.966
GEOM. MEAN	30.7	1.8839	*****	114.57	14.678	13.787	4.528
GEOM. STD. DEV.	77.0	3.3883	*****	168.56	37.916	13.365	10.122
1ST QUARTILE	1.5	1.6810	*****	1.95	1.418	3.253	1.523
2ND QUARTILE	57.5	2.1297	*****	141.47	27.720	4.625	7.860
3RD QUARTILE	74.5	3.4603	*****	184.00	33.850	19.120	8.470
VOL. WGT. MEAN	94.5	4.4487	*****	247.95	57.135	30.885	15.435
	*****	3.7740	*****	207.33	41.587	20.053	11.353

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
MAXIMUM	11	11	12	12	12	11	11
MINIMUM	59.850	4.875	5.200	11.430	43.180	1.0080	1.3860
RANGE	6.300	0.000	0.000	0.880	4.050	0.0000	0.0225
ARITH. MEAN	53.550	4.875	5.200	10.550	39.130	1.0080	1.3635
ARITH. STD. DEV	29.450	2.805	1.539	3.506	24.183	0.3106	0.3008
GEOM. MEAN	17.276	1.954	1.816	2.905	12.646	0.3082	0.3953
GEOM. STD. DEV.	24.275	2.026	0.939	2.746	20.198	0.2633	0.1533
1ST QUARTILE	2.008	2.823	3.488	2.032	2.018	2.5755	3.4759
2ND QUARTILE	13.610	0.350	0.177	1.597	13.155	0.0635	0.0472
3RD QUARTILE	24.240	3.310	0.440	2.997	24.675	0.1897	0.1220
VOL. WGT. MEAN	41.585	4.322	3.005	3.780	35.500	0.4300	0.3585
	29.236	2.785	1.593	3.630	25.037	0.3084	0.2986

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/CUMULATIVE PRECIP.

\$20

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALLUMINIUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	11	10	11	11	11	11	12
MAXIMUM	0.0693	0.611	11.7432	1.4199	0.051	10.918	0.1492
MINIMUM	0.0054	0.094	0.4090	0.1684	0.009	0.797	0.0094
RANGE	0.0639	0.517	11.3342	1.2515	0.042	10.121	0.1398
ARITH. MEAN	0.0324	0.317	3.7238	0.4568	0.022	3.900	0.0508
ARITH. STD. DEV.	0.0178	0.179	3.5348	0.3813	0.013	3.365	0.0437
GEOM. MEAN	0.0268	0.268	2.3627	0.3619	0.019	2.727	0.0446
GEOM. STD. DEV.	2.0657	1.913	2.8772	1.9526	1.713	2.475	2.2638
1ST QUARTILE	0.0131	0.136	0.8721	0.1998	0.011	1.127	0.0291
2ND QUARTILE	0.0331	0.286	2.1314	0.2954	0.018	2.174	0.0418
3RD QUARTILE	0.0407	0.425	5.2385	0.4772	0.029	5.794	0.0835
VOL. MGT. MEAN	0.0321	0.308	3.6968	0.4535	0.022	3.672	0.0609

CADMIUM

	MG/M**2
# OF SAMPLES	11
MAXIMUM	0.01071
MINIMUM	0.00088
RANGE	0.00983
ARITH. MEAN	0.00456
ARITH. STD. DEV.	0.00364
GEOM. MEAN	0.00320
GEOM. STD. DEV.	2.54509
1ST QUARTILE	0.00113
2ND QUARTILE	0.00252
3RD QUARTILE	0.00769
VOL. MGT. MEAN	0.00453

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EAR FALL'S/CUMULATIVE PRECIP. #35

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH0.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
13	100.0	1.2109	0	12	12	12	12
MAXIMUM	100.0	1.2109	*****	80.00	16.000	36.024	18.870
MINIMUM	9.1	0.0511	*****	6.82	2.457	1.206	0.000
RANGE	90.9	1.1598	*****	73.17	13.543	34.818	18.870
ARITH. MEAN	53.0	0.3545	*****	39.88	8.621	10.821	4.406
ARITH. STD. DEV	33.4	0.3189	*****	23.41	4.788	10.021	4.851
GEOM. MEAN	41.7	0.2490	*****	32.30	7.262	7.012	3.309
GEOM. STD. DEV.	2.2	2.4641	*****	2.10	1.912	2.852	1.917
1ST QUANTILE	22.1	0.1426	*****	19.14	4.575	3.292	2.038
2ND QUANTILE	40.8	0.1978	*****	43.17	7.135	8.467	3.314
3RD QUANTILE	79.4	0.4603	*****	53.63	12.810	16.400	4.609
VOL. WGT. MEAN	*****	0.3545	*****	41.57	8.987	10.241	4.593

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
12	28.440	7.110	12	12	13	12	11
MAXIMUM	28.440	7.110	3.600	5.600	18.012	0.9480	0.6636
MINIMUM	1.456	0.068	0.000	0.750	0.000	0.0574	0.0311
RANGE	26.984	7.042	3.600	4.850	18.012	0.8906	0.6325
ARITH. MEAN	11.685	1.504	1.484	2.569	7.227	0.3501	0.1828
ARITH. STD. DEV	8.998	2.043	1.377	1.222	6.194	0.2493	0.1866
GEOM. MEAN	7.863	0.673	0.874	2.320	3.732	0.2764	0.1201
GEOM. STD. DEV.	2.836	4.010	3.901	1.627	4.520	2.1181	2.8319
1ST QUANTILE	3.026	0.277	0.128	1.934	0.918	0.1986	0.0398
2ND QUANTILE	10.250	0.561	1.188	2.228	5.542	0.2379	0.1005
3RD QUANTILE	17.500	2.187	2.787	3.179	10.807	0.4768	0.2625
VOL. WGT. MEAN	11.059	1.423	1.404	2.432	7.227	0.3313	0.1608

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EAR FALL'S/CUMULATIVE PRECIP. 835

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.0603	0.430	9.5369	0.5278	0.020	7.714	0.1175
MINIMUM	0.0029	0.087	0.9420	0.0407	0.004	0.837	0.0131
RANGE	0.0574	0.344	8.5949	0.4871	0.016	6.877	0.1045
ARITH. MEAN	0.0136	0.207	2.6803	0.2353	0.012	2.368	0.0414
ARITH. STD. DEV	0.0161	0.123	2.3559	0.1661	0.006	1.876	0.0300
GEOM. MEAN	0.0097	0.176	2.1944	0.1661	0.010	1.973	0.0340
GEOM. STD. DEV.	2.1515	1.805	1.8012	2.6072	1.830	1.792	1.8993
1ST QUANTILE	0.0061	0.095	1.5229	0.0454	0.005	1.217	0.0194
2ND QUANTILE	0.0067	0.154	1.8805	0.2115	0.011	1.832	0.0292
3RD QUANTILE	0.0098	0.324	2.6800	0.3371	0.017	2.522	0.0488
VOL. WGT. MEAN	0.0120	0.162	2.3572	0.2070	0.011	2.083	0.0364

CADMIUM

	MG/M**2
# OF SAMPLES	11
MAXIMUM	0.18180
MINIMUM	0.00095
RANGE	0.18085
ARITH. MEAN	0.01833
ARITH. STD. DEV	0.05422
GEOM. MEAN	0.00279
GEOM. STD. DEV.	4.20946
1ST QUANTILE	0.00130
2ND QUANTILE	0.00179
3RD QUANTILE	0.00262
VOL. WGT. MEAN	0.01612

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EXP. LAKES AREA/CUMULATIVE PRECIP. #34

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH6.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
# OF SAMPLES	13	13	0	13	13	12	13
MAXIMUM	160.0	0.5940	*****	200.00	32.000	59.200	9.432
MINIMUM	5.6	0.0687	*****	12.53	3.002	1.253	0.000
RANGE	154.4	0.5253	*****	187.47	28.998	57.947	9.432
ARITH. MEAN	68.6	0.3137	*****	66.07	13.942	17.708	3.748
ARITH. STD. DEV	51.4	0.1849	*****	57.84	8.515	17.468	2.550
GEOM. MEAN	46.1	0.2531	*****	45.21	11.316	10.144	3.190
GEOM. STD. DEV.	2.9	2.0989	*****	2.56	2.057	3.463	1.713
1ST QUARTILE	17.8	0.1206	*****	18.02	6.824	4.063	2.119
2ND QUARTILE	61.3	0.2848	*****	49.82	11.230	14.828	2.632
3RD QUARTILE	99.9	0.4274	*****	78.67	19.010	23.362	4.300
VOL. WGT. MEAN	*****	0.5137	*****	66.07	13.942	16.449	3.748

	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
# OF SAMPLES	13	12	12	12	13	13	11
MAXIMUM	76.800	9.600	7.200	9.432	50.304	2.0800	1.2800
MINIMUM	2.464	0.134	0.079	0.712	0.869	0.1975	0.0158
RANGE	74.336	9.466	7.121	8.719	49.435	1.8825	1.2642
ARITH. MEAN	25.638	2.358	1.944	3.706	18.758	0.7329	0.3695
ARITH. STD. DEV	24.046	3.022	2.063	2.715	18.620	0.5979	0.4508
GEOM. MEAN	14.743	1.059	0.985	2.795	8.954	0.5500	0.1775
GEOM. STD. DEV.	3.361	4.091	4.092	2.290	4.501	2.2033	4.0144
1ST QUARTILE	4.136	0.334	0.309	1.698	2.525	0.2335	0.0404
2ND QUARTILE	17.765	1.331	1.446	2.994	12.329	0.5696	0.2322
3RD QUARTILE	35.810	2.692	3.053	5.086	23.529	0.7819	0.3152
VOL. WGT. MEAN	25.638	2.191	1.806	3.443	18.758	0.7329	0.3210

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EXP. LAKES AREA/CUMULATIVE PRECIP. #34

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.0668	0.566	19.9517	1.1203	0.080	19.974	0.1264
MINIMUM	0.0072	0.108	0.4653	0.0773	0.003	0.557	0.0140
RANGE	0.0597	0.457	19.4864	1.0430	0.077	19.417	0.1123
ARITH. MEAN	0.0246	0.294	4.7056	0.2947	0.022	4.916	0.0514
ARITH. STD. DEV.	0.0174	0.151	5.8573	0.2922	0.023	5.777	0.0395
GEOM. MEAN	0.0198	0.258	2.6722	0.2186	0.014	2.939	0.0396
GEOM. STD. DEV.	2.0134	1.741	2.9846	2.1457	2.814	2.857	2.1397
1ST QUANTILE	0.0083	0.136	1.1424	0.1055	0.004	1.255	0.0189
2ND QUANTILE	0.0196	0.259	1.8302	0.2328	0.016	2.346	0.0335
3RD QUANTILE	0.0296	0.384	4.9050	0.2969	0.024	6.094	0.0728
VOL. WGT. MEAN	0.0213	0.255	4.0881	0.2561	0.019	4.271	0.0447

CADMIUM

	MG/MM#2
# OF SAMPLES	11
MAXIMUM	0.00734
MINIMUM	0.00072
RANGE	0.00662
ARITH. MEAN	0.00348
ARITH. STD. DEV.	0.00235
GEOM. MEAN	0.00271
GEOM. STD. DEV.	2.17848
1ST QUANTILE	0.00137
2ND QUANTILE	0.00213
3RD QUANTILE	0.00551
VOL. WGT. MEAN	0.00302

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GERALDTON/CUMULATIVE PRECIP. #30

PERIOD OF REPORT : JAN 2, 85 TO JAN 1, 86

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# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
12	12	12	0	12	12	11	12
MAXIMUM	157.0	2.0800	*****	219.80	34.540	32.970	11.452
MINIMUM	15.8	0.1328	*****	8.69	2.054	1.580	1.562
RANGE	141.2	1.9472	*****	211.11	32.486	31.390	9.890
ARITH. MEAN	53.9	0.6199	*****	70.31	11.132	11.971	6.255
ARITH. STD. DEV.	39.3	0.5835	*****	64.82	8.676	9.443	3.839
GEOM. MEAN	43.2	0.4418	*****	48.57	8.809	8.534	5.055
GEOM. STD. DEV.	2.0	2.3166	*****	2.52	2.055	2.557	2.067
1ST QUARTILE	22.4	0.2438	*****	26.91	6.205	3.000	2.924
2ND QUARTILE	45.9	0.4421	*****	47.80	9.355	9.800	5.442
3RD QUARTILE	71.9	0.7466	*****	88.46	12.639	14.394	10.787
VOL. WGT. MEAN	*****	0.6199	*****	70.31	11.132	11.266	6.255

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
11	11	11	11	11	12	11	11
MAXIMUM	106.760	4.710	10.205	8.635	69.865	9.8910	0.4710
MINIMUM	1.264	0.079	0.039	1.450	0.000	0.0781	0.0158
RANGE	105.496	4.631	10.165	7.185	69.865	9.8129	0.4552
ARITH. MEAN	27.014	1.628	2.703	5.333	13.179	1.3929	0.1711
ARITH. STD. DEV.	30.110	1.517	3.175	2.759	19.431	2.8324	0.1700
GEOM. MEAN	16.027	0.890	1.053	4.540	5.951	0.5776	0.0995
GEOM. STD. DEV.	3.235	3.816	5.766	1.898	3.794	3.3896	3.2109
1ST QUARTILE	7.990	0.238	0.164	2.134	3.142	0.2366	0.0328
2ND QUARTILE	16.542	1.172	1.227	4.660	7.500	0.6019	0.0965
3RD QUARTILE	28.562	2.175	3.801	7.954	12.533	0.8250	0.2531
VOL. WGT. MEAN	25.423	1.532	2.543	5.019	13.179	1.3109	0.1610

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GERALDTON/CUMULATIVE PRECIP. #30

PERIOD OF REPORT : JAN 2, 85 TO JAN 1, 86

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# OF SAMPLES	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
MAXIMUM	11 0.0573	11 2.531	11 8.0572	11 0.6464	11 0.031	11 5.148	11 0.1708
MINIMUM	0.0020	0.075	0.2261	0.0676	0.003	0.609	0.0105
RANGE	0.0552	2.456	7.8311	0.5788	0.028	4.539	0.1603
ARITH. MEAN	0.0209	0.412	2.6490	0.2417	0.012	2.552	0.0683
ARITH. STD. DEV.	0.0164	0.717	2.2315	0.1696	0.008	1.489	0.0548
GEOM. MEAN	0.0141	0.215	1.7746	0.1942	0.010	2.114	0.0473
GEOM. STD. DEV.	2.9107	2.695	2.8762	2.0275	1.840	1.984	2.6525
1ST QUANTILE	0.0041	0.113	0.6472	0.0921	0.006	1.082	0.0147
2ND QUANTILE	0.0178	0.148	2.5429	0.2025	0.009	1.960	0.0481
3RD QUANTILE	0.0297	0.255	3.2771	0.2999	0.014	3.550	0.1038
VOL. WGT. MEAN	0.0197	0.388	2.4929	0.2274	0.011	2.402	0.0642

CADMIUM

# OF SAMPLES	MG/M**2
MAXIMUM	11 0.05534
MINIMUM	0.00032
RANGE	0.05503
ARITH. MEAN	0.00960
ARITH. STD. DEV.	0.01576
GEOM. MEAN	0.00392
GEOM. STD. DEV.	4.28645
1ST QUANTILE	0.00095
2ND QUANTILE	0.00429
3RD QUANTILE	0.00896
VOL. WGT. MEAN	0.00904

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GOLDEN LAKE/CUMULATIVE PRECIP. #17

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PHO.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
# OF SAMPLES :	13	12	0	12	12	11	12
MAXIMUM :	87.0	4.6185	*****	308.85	51.330	45.240	12.180
MINIMUM :	26.0	1.3576	*****	44.95	11.500	5.060	0.840
RANGE :	61.0	3.2609	*****	263.90	39.830	40.180	11.340
ARITH. MEAN :	55.6	2.5170	*****	137.25	25.362	14.772	4.821
ARITH. STD. DEV :	21.1	1.0270	*****	74.66	10.717	11.177	3.654
GEOM. MEAN :	51.9	2.3380	*****	120.93	23.469	12.323	3.592
GEOM. STD. DEV. :	1.5	1.4918	*****	1.70	1.510	1.804	2.322
1ST QUARTILE :	39.0	1.6340	*****	84.80	17.760	7.775	2.074
2ND QUARTILE :	50.0	2.3327	*****	120.64	25.665	10.941	3.990
3RD QUARTILE :	69.1	3.1748	*****	153.45	29.381	15.950	7.425
VOL. WGT. MEAN :	*****	2.4522	*****	133.72	24.709	14.321	4.697

	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
# OF SAMPLES :	12	11	10	11	12	12	12
MAXIMUM :	69.600	5.220	2.700	5.220	55.680	0.8700	0.5220
MINIMUM :	7.750	0.230	0.000	0.300	3.240	0.0230	0.0200
RANGE :	61.850	4.990	2.700	4.920	52.440	0.8470	0.5020
ARITH. MEAN :	20.690	2.064	1.353	1.966	15.858	0.2573	0.1574
ARITH. STD. DEV :	17.047	1.338	1.035	1.473	14.369	0.2474	0.1432
GEOM. MEAN :	16.746	1.629	1.371	1.489	11.890	0.1636	0.1059
GEOM. STD. DEV. :	1.881	2.269	1.666	2.313	2.168	2.8811	2.6607
1ST QUARTILE :	10.390	0.975	0.300	0.730	7.420	0.0891	0.0500
2ND QUARTILE :	14.718	1.760	1.145	1.515	12.112	0.1475	0.1230
3RD QUARTILE :	23.975	2.475	2.237	2.259	17.975	0.3620	0.2240
VOL. WGT. MEAN :	20.157	2.001	1.244	1.906	15.450	0.2507	0.1533

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GOLDEN LAKE/CUMULATIVE PRECIP. #17

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.0364	0.407	7.7038	0.9152	0.017	6.421	0.3187
MINIMUM	0.0042	0.062	0.4886	0.0319	0.005	0.670	0.0086
RANGE	0.0322	0.346	7.2153	0.8833	0.012	5.751	0.3101
ARITH. MEAN	0.0196	0.207	2.3441	0.2784	0.011	2.367	0.0740
ARITH. STD. DEV.	0.0132	0.111	1.9521	0.2524	0.004	1.605	0.0854
GEOM. MEAN	0.0150	0.178	1.7713	0.1839	0.011	1.964	0.0454
GEOM. STD. DEV.	2.2580	1.821	2.2154	2.7890	1.493	1.887	2.8603
1ST QUANTILE	0.0069	0.107	0.9992	0.1008	0.008	1.390	0.0246
2ND QUANTILE	0.0146	0.199	2.0909	0.2146	0.011	1.717	0.0465
3RD QUANTILE	0.0334	0.265	2.9635	0.4063	0.016	3.064	0.0890
VOL. WGT. MEAN	0.0191	0.201	2.2837	0.2712	0.011	2.306	0.0721

CADMIUM

	MG/MM#2
# OF SAMPLES	11
MAXIMUM	0.02760
MINIMUM	0.00042
RANGE	0.02718
ARITH. MEAN	0.00628
ARITH. STD. DEV.	0.00765
GEOM. MEAN	0.00361
GEOM. STD. DEV.	3.19180
1ST QUANTILE	0.00154
2ND QUANTILE	0.00310
3RD QUANTILE	0.00709
VOL. WGT. MEAN	0.00610

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GONGANDA/CUMULATIVE PRECIP. #25

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH6.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
13	13	13	0	13	13	13	13
MAXIMUM	86.0	3.5975	*****	208.00	26.660	20.800	55.500
MINIMUM	18.4	0.6015	*****	22.08	1.480	1.060	1.025
RANGE	67.6	2.9960	*****	185.92	25.180	19.739	54.475
ARITH. MEAN	53.5	1.9803	*****	99.94	13.294	5.898	7.715
ARITH. STD. DEV	22.2	1.1022	*****	62.18	7.442	5.786	14.507
GEOM. MEAN	48.3	1.6685	*****	81.32	10.822	3.917	3.946
GEOM. STD. DEV.	1.7	1.8986	*****	2.02	2.157	2.572	2.691
1ST QUARTILE	38.0	0.8646	*****	50.55	8.412	1.769	2.052
2ND QUARTILE	49.5	1.6826	*****	73.32	11.084	3.219	3.044
3RD QUARTILE	68.3	2.6500	*****	131.38	18.260	7.000	5.586
VOL. WGT. MEAN	*****	1.9803	*****	99.94	13.294	5.898	7.715

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
12	13	13	13	13	13	12	12
MAXIMUM	44.400	2.860	13.320	53.650	21.930	3.4780	0.4680
MINIMUM	2.944	0.000	0.000	0.160	0.000	0.0410	0.0205
RANGE	41.456	2.860	13.320	53.490	21.930	3.4370	0.4475
ARITH. MEAN	16.392	0.960	2.562	5.411	7.509	0.7781	0.1190
ARITH. STD. DEV	11.739	0.958	3.516	14.579	6.544	1.0542	0.1279
GEOM. MEAN	12.806	0.627	1.488	1.053	3.722	0.3603	0.0771
GEOM. STD. DEV.	2.161	3.153	3.123	4.991	5.428	3.9360	2.5970
1ST QUARTILE	8.550	0.170	0.585	0.319	1.610	0.1570	0.0342
2ND QUARTILE	12.625	0.445	1.447	0.589	6.294	0.4404	0.0761
3RD QUARTILE	22.996	1.565	2.167	2.292	8.967	0.6620	0.1670
VOL. WGT. MEAN	15.556	0.960	2.562	5.411	7.509	0.7384	0.1129

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GOWGANDA/CUMULATIVE PRECIP. #25

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/NN#2	MG/NN#2	MG/NN#2	MG/NN#2	MG/NN#2	MG/NN#2	MG/NN#2
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.2340	0.781	3.2849	0.6838	0.041	3.621	0.2407
MINIMUM	0.0035	0.095	0.4089	0.0629	0.004	0.601	0.0126
RANGE	0.2305	0.687	2.8760	0.6209	0.037	3.020	0.2281
ARITH. MEAN	0.0377	0.228	1.2631	0.2684	0.015	1.672	0.0656
ARITH. STD. DEV.	0.0638	0.216	0.9451	0.1659	0.011	0.833	0.0649
GEOM. MEAN	0.0182	0.172	1.0174	0.2227	0.013	1.503	0.0433
GEOM. STD. DEV.	3.1827	2.022	1.9343	1.9607	1.932	1.624	2.6349
1ST QUANTILE	0.0083	0.098	0.6405	0.1467	0.008	1.203	0.0166
2ND QUANTILE	0.0200	0.131	0.9062	0.2793	0.013	1.464	0.0543
3RD QUANTILE	0.0298	0.235	1.7048	0.3251	0.019	2.120	0.0918
VOL. WGT. MEAN	0.0357	0.216	1.1987	0.2547	0.015	1.587	0.0622

CADMIUM

	MG/NN#2
# OF SAMPLES	12
MAXIMUM	0.03922
MINIMUM	0.00035
RANGE	0.03887
ARITH. MEAN	0.00641
ARITH. STD. DEV.	0.01067
GEOM. MEAN	0.00282
GEOM. STD. DEV.	3.82188
1ST QUANTILE	0.00124
2ND QUANTILE	0.00322
3RD QUANTILE	0.00639
VOL. WGT. MEAN	0.00608

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HURON PARK/CUMULATIVE PRECIP. 306

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
MAXIMUM	10	10	0	10	10	10	10
MINIMUM	135.0	11.2288	*****	573.75	94.500	66.560	28.350
RANGE	20.4	0.2644	*****	42.50	14.250	7.250	3.780
ARITH. MEAN	114.6	10.9645	*****	531.25	80.250	59.310	24.570
ARITH. STD. DEV	53.4	2.9010	*****	213.82	36.032	29.529	11.122
GEOM. MEAN	40.2	3.2428	*****	148.18	24.926	16.948	8.202
GEOM. STD. DEV.	42.3	1.7412	*****	173.49	31.805	25.267	9.048
1ST QUARTILE	2.0	3.0362	*****	2.03	1.873	1.851	1.928
2ND QUARTILE	21.5	0.6913	*****	103.72	16.415	17.780	4.750
3RD QUARTILE	36.5	2.0219	*****	185.65	36.095	23.379	8.835
VOL. WGT. MEAN	67.5	3.1300	*****	257.05	42.395	36.820	10.260
	*****	2.9010	*****	213.82	36.032	29.529	11.122

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
MAXIMUM	10	10	10	10	10	10	10
MINIMUM	72.900	10.080	3.280	6.760	64.800	4.2330	1.0800
RANGE	10.000	1.000	0.204	1.020	7.750	0.0615	0.0500
ARITH. MEAN	62.900	9.080	3.076	5.740	57.050	4.1715	1.0300
ARITH. STD. DEV	38.239	4.800	1.730	3.097	31.943	0.8635	0.3670
GEOM. MEAN	20.524	2.530	1.066	1.870	18.814	1.2523	0.3707
GEOM. STD. DEV.	32.663	4.129	1.337	2.606	26.945	0.4057	0.2371
1ST QUARTILE	1.883	1.881	2.380	1.886	1.907	3.7361	2.7026
2ND QUARTILE	20.002	3.067	0.699	1.290	17.140	0.1104	0.1065
3RD QUARTILE	35.970	4.205	1.495	2.780	28.720	0.4180	0.2420
VOL. WGT. MEAN	48.240	5.980	2.630	3.907	34.305	0.8920	0.3625
	38.239	4.800	1.730	3.097	31.943	0.8635	0.3670

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HURON PARK/CUMULATIVE PRECIP. 806

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	10	10	8	10	10	7	10
MAXIMUM	0.3510	2.731	6.3546	1.3662	0.189	4.990	0.2920
MINIMUM	0.0075	0.168	1.2872	0.1476	0.004	1.334	0.0133
RANGE	0.3435	2.563	5.0674	1.2186	0.185	3.655	0.2787
ARITH. MEAN	0.0623	0.801	3.0480	0.4631	0.044	2.787	0.0834
ARITH. STD. DEV.	0.1061	0.870	1.8810	0.3707	0.062	1.379	0.0835
GEOM. MEAN	0.0264	0.506	2.6015	0.3615	0.021	2.512	0.0566
GEOM. STD. DEV.	3.5436	2.632	1.8146	2.0788	3.478	1.637	2.5277
1ST QUANTILE	0.0083	0.231	1.5143	0.1603	0.007	1.440	0.0249
2ND QUANTILE	0.0207	0.395	2.5252	0.4106	0.015	2.219	0.0502
3RD QUANTILE	0.0436	0.868	4.3314	0.4984	0.034	3.602	0.1015
VOL. WGT. MEAN	0.0623	0.801	4.1184	0.4631	0.044	3.530	0.0834

CADMIUM

	MG/MM#2
# OF SAMPLES	10
MAXIMUM	0.01890
MINIMUM	0.00122
RANGE	0.01768
ARITH. MEAN	0.00648
ARITH. STD. DEV.	0.00623
GEOM. MEAN	0.00409
GEOM. STD. DEV.	2.80975
1ST QUANTILE	0.00148
2ND QUANTILE	0.00332
3RD QUANTILE	0.00948
VOL. WGT. MEAN	0.00648

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : KILLARNEY/CUMULATIVE PRECIP. #23

PERIOD OF REPORT : JAN 2, 85 TO DEC 30, 85

PAGE : 1

PRECIP.		FREE H+		TOTAL H+		SULPHATE		NITRATE		CALCIUM		CHLORIDE	
MM		LAB		TO PH6.3		MG/MM#2		AS N		MG/MM#2		MG/MM#2	
# OF SAMPLES	11	11		0		11		11		11		11	
MAXIMUM	110.0	7.6101		*****		371.35		67.904		31.830		18.810	
MINIMUM	15.0	0.5322		*****		36.75		8.550		1.485		1.600	
RANGE	95.0	7.0779		*****		334.60		59.354		30.345		17.210	
ARITH. MEAN	64.2	3.5930		*****		187.81		36.031		13.200		9.222	
ARITH. STD. DEV	36.7	2.3255		*****		121.55		20.986		10.826		5.652	
GEOM. MEAN	52.5	2.7037		*****		142.96		29.325		8.912		7.224	
GEOM. STD. DEV.	2.1	2.4326		*****		2.35		2.070		2.726		2.260	
1ST QUARTILE	24.1	1.0615		*****		52.15		13.730		3.611		2.700	
2ND QUARTILE	55.5	3.7438		*****		197.77		32.645		6.900		8.293	
3RD QUARTILE	98.0	5.0336		*****		244.12		53.395		22.785		12.840	
VOL. WGT. MEAN	*****	3.5930		*****		187.81		36.031		13.200		9.222	

KJELDAHL		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM		PHOSPHOR		MANGANESE	
AS N		MG/MM#2		MG/MM#2		MG/MM#2		AS N		MG/MM#2		MG/MM#2	
# OF SAMPLES	11	11		11		11		11		11		11	
MAXIMUM	61.110	5.305		3.600		6.366		51.989		1.1640		0.4800	
MINIMUM	5.600	0.175		0.350		1.275		2.975		0.0702		0.0281	
RANGE	55.510	5.130		3.250		5.091		49.014		1.0937		0.4519	
ARITH. MEAN	28.904	2.474		2.023		3.516		22.094		0.4250		0.1944	
ARITH. STD. DEV	19.755	1.671		1.054		1.927		15.941		0.3671		0.1288	
GEOM. MEAN	22.069	1.769		1.700		2.995		15.676		0.2898		0.1540	
GEOM. STD. DEV.	2.301	2.771		1.998		1.856		2.649		2.6115		2.1867	
1ST QUARTILE	9.541	0.722		0.977		1.475		5.856		0.1000		0.0845	
2ND QUARTILE	23.445	2.275		1.840		3.146		18.967		0.2737		0.1600	
3RD QUARTILE	41.250	3.607		2.701		5.147		34.785		0.6500		0.2555	
VOL. WGT. MEAN	28.904	2.474		2.023		3.516		22.094		0.4250		0.1944	

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : KILLARNEY/CUMULATIVE PRECIP. #23

PERIOD OF REPORT : JAN 2, 85 TO DEC 30, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.0945	1.606	5.4140	1.1533	0.034	4.960	0.5351
MINIMUM	0.0080	0.091	0.9653	0.1319	0.006	0.772	0.0181
RANGE	0.0865	1.516	4.4487	1.0214	0.028	4.188	0.5170
ARITH. MEAN	0.0299	0.529	2.6491	0.4986	0.017	2.630	0.1157
ARITH. STD. DEV.	0.0251	0.431	1.3347	0.3979	0.008	1.507	0.1473
GEOM. MEAN	0.0230	0.397	2.3729	0.3698	0.015	2.196	0.0701
GEOM. STD. DEV.	2.1090	2.267	1.6381	2.2619	1.766	1.942	2.7325
1ST QUANTILE	0.0108	0.186	1.6590	0.1608	0.007	1.085	0.0274
2ND QUANTILE	0.0236	0.385	2.1885	0.2726	0.019	1.906	0.0667
3RD QUANTILE	0.0344	0.685	3.1656	0.7488	0.021	3.816	0.1161
VOL. WGT. MEAN	0.0299	0.529	2.6491	0.4986	0.017	2.630	0.1157

CADMIUM

	MG/MM#2
# OF SAMPLES	11
MAXIMUM	0.01848
MINIMUM	0.00160
RANGE	0.01688
ARITH. MEAN	0.00849
ARITH. STD. DEV.	0.00547
GEOM. MEAN	0.00684
GEOM. STD. DEV.	2.08866
1ST QUANTILE	0.00365
2ND QUANTILE	0.00722
3RD QUANTILE	0.00995
VOL. WGT. MEAN	0.00849

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/CUMULATIVE PRECIP. #33

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
# OF SAMPLES	11	11	0	10	10	10	10
MAXIMUM	144.8	1.2976	*****	186.24	37.648	64.664	24.514
MINIMUM	12.0	0.0581	*****	9.60	3.720	1.800	0.000
RANGE	132.8	1.2396	*****	176.64	33.928	62.864	24.514
ARITH. MEAN	58.9	0.4742	*****	72.14	15.257	19.773	7.152
ARITH. STD. DEV.	42.5	0.3925	*****	64.26	11.128	22.082	8.414
GEOM. MEAN	45.7	0.3353	*****	50.77	12.330	11.505	3.908
GEOM. STD. DEV.	2.2	2.5650	*****	2.49	1.981	3.062	3.189
1ST QUARTILE	22.4	0.1750	*****	27.96	7.758	5.235	0.924
2ND QUARTILE	38.3	0.2827	*****	44.26	11.262	9.847	4.059
3RD QUARTILE	83.4	0.5689	*****	77.38	14.982	19.800	6.524
VOL. WGT. MEAN	*****	0.4742	*****	67.78	14.335	18.578	6.720

	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
# OF SAMPLES	9	10	10	10	10	9	9
MAXIMUM	65.760	11.508	10.136	23.086	39.456	5.7834	1.6440
MINIMUM	3.960	0.360	0.340	1.134	0.030	0.0340	0.0360
RANGE	61.800	11.148	9.795	21.952	39.426	5.7493	1.6080
ARITH. MEAN	25.752	3.429	3.039	6.164	15.050	1.2540	0.4600
ARITH. STD. DEV.	21.631	3.872	3.194	6.985	14.846	1.9183	0.5684
GEOM. MEAN	18.488	1.998	1.858	3.817	6.043	0.3936	0.2268
GEOM. STD. DEV.	2.442	3.019	2.914	2.712	8.285	5.6150	3.6394
1ST QUARTILE	11.151	0.847	0.804	1.496	2.626	0.0860	0.0844
2ND QUARTILE	14.556	1.821	1.589	3.321	8.945	0.2806	0.1455
3RD QUARTILE	29.683	3.300	3.679	6.506	21.577	0.9975	0.4210
VOL. WGT. MEAN	23.010	3.222	2.855	5.791	14.140	1.1204	0.4044

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/CUMULATIVE PRECIP. #33

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	9	9	9	9	9	9	9
MAXIMUM	0.1277	0.475	28.5946	0.8741	0.055	27.312	0.1790
MINIMUM	0.0043	0.068	0.8398	0.0329	0.006	1.264	0.0130
RANGE	0.1234	0.406	27.7548	0.8412	0.048	26.049	0.1660
ARITH. MEAN	0.0294	0.251	5.5303	0.3091	0.019	5.952	0.0661
ARITH. STD. DEV	0.0399	0.139	8.8719	0.3327	0.015	8.202	0.0584
GEOM. MEAN	0.0162	0.212	2.7693	0.1565	0.015	3.622	0.0459
GEOM. STD. DEV.	2.9825	1.942	3.0602	3.7283	1.931	2.569	2.5108
1ST QUARTILE	0.0063	0.116	1.0315	0.0458	0.009	1.698	0.0212
2ND QUARTILE	0.0127	0.225	2.2528	0.0873	0.013	2.572	0.0338
3RD QUARTILE	0.0201	0.323	3.2458	0.4136	0.017	5.321	0.0847
VOL. WGT. MEAN	0.0258	0.221	4.8611	0.2717	0.016	5.231	0.0581

CADMIUM

	MG/MM#2
# OF SAMPLES	9
MAXIMUM	0.00681
MINIMUM	0.00061
RANGE	0.00620
ARITH. MEAN	0.00238
ARITH. STD. DEV	0.00185
GEOM. MEAN	0.00190
GEOM. STD. DEV.	2.01040
1ST QUARTILE	0.00119
2ND QUARTILE	0.00168
3RD QUARTILE	0.00261
VOL. WGT. MEAN	0.00209

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MATTAWA/CUMULATIVE PRECIP. #22

PERIOD OF REPORT : JAN 2, 85 TO DEC 3, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
MAXIMUM	8	6.9241	0	471.60	84.888	50.304	22.008
MINIMUM	104.8	0.9540	*****	22.80	2.880	2.400	1.450
RANGE	24.0	5.9701	*****	448.80	82.008	47.904	20.558
ARITH. MEAN	80.8	3.1988	*****	176.70	28.914	17.871	9.614
ARITH. STD. DEV	61.1	2.1051	*****	135.06	26.758	15.916	7.256
GEOM. MEAN	24.0	2.5871	*****	133.17	19.443	11.887	7.111
GEOM. STD. DEV.	56.7	2.0928	*****	2.43	2.794	2.871	2.448
1ST QUARTILE	1.5	1.0008	*****	96.40	12.780	6.490	4.084
2ND QUARTILE	49.6	2.6421	*****	154.04	18.981	15.123	7.440
3RD QUARTILE	57.0	4.0909	*****	209.16	40.012	23.520	15.202
VOL. WGT. MEAN	73.6	3.1035	*****	176.70	2/.914	17.871	9.614

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
MAXIMUM	8	11.760	11.880	11.368	70.740	4.9500	1.0560
MINIMUM	83.840	0.060	0.060	0.560	0.000	0.0840	0.0720
RANGE	4.560	11.700	11.820	10.808	70.740	4.8660	0.9840
ARITH. MEAN	79.280	3.811	4.183	3.652	22.389	1.0311	0.3688
ARITH. STD. DEV	30.214	3.863	4.170	4.137	24.143	1.6589	0.3399
GEOM. MEAN	29.903	1.969	1.888	2.144	11.679	0.4113	0.2521
GEOM. STD. DEV.	19.098	4.930	5.782	2.942	2.837	4.0288	2.5873
1ST QUARTILE	2.851	1.474	0.917	1.060	5.450	0.1445	0.1091
2ND QUARTILE	8.820	2.541	3.374	1.479	12.267	0.2836	0.2440
3RD QUARTILE	16.537	5.318	6.470	3.610	36.470	1.1794	0.5580
VOL. WGT. MEAN	51.300	3.611	4.183	3.652	22.389	1.0311	0.3688
	30.214						

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MATTAWA/CUMULATIVE PRECIP. #22

PERIOD OF REPORT : JAN 2, 85 TO DEC 3, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	8	8	8	8	8	8	8
MAXIMUM	0.1868	1.642	15.2412	1.2230	0.021	10.621	0.4796
MINIMUM	0.0056	0.133	0.6005	0.0455	0.005	0.817	0.0346
RANGE	0.1812	1.508	14.6408	1.1775	0.016	9.804	0.4449
ARITH. MEAN	0.0661	0.648	4.1641	0.4331	0.012	3.411	0.1254
ARITH. STD. DEV.	0.0565	0.613	4.9395	0.3870	0.005	3.407	0.1490
GEOM. MEAN	0.0457	0.421	2.5459	0.2813	0.011	2.301	0.0828
GEOM. STD. DEV.	2.8136	2.713	2.7828	2.9808	1.541	2.557	2.4372
1ST QUARTILE	0.0336	0.201	1.3067	0.1408	0.010	0.925	0.0415
2ND QUARTILE	0.0467	0.271	2.4503	0.3700	0.011	2.399	0.0706
3RD QUARTILE	0.0879	1.234	4.9783	0.5872	0.015	4.602	0.1323
VOL. WGT. MEAN	0.0661	0.648	4.1641	0.4331	0.012	3.411	0.1254

CADMIUM

	MG/M**2
# OF SAMPLES	8
MAXIMUM	0.01299
MINIMUM	0.00096
RANGE	0.01203
ARITH. MEAN	0.00558
ARITH. STD. DEV.	0.00455
GEOM. MEAN	0.00393
GEOM. STD. DEV.	2.59036
1ST QUARTILE	0.00174
2ND QUARTILE	0.00455
3RD QUARTILE	0.00906
VOL. WGT. MEAN	0.00558

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MCKELLAR/CUMULATIVE PRECIP. #21

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP.	FREE H+ LAB	TOTAL H+ TO PH8.3	SULPHATE	NITRATE AS N	CALCIUM	CHLORIDE
:	MM	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
MAXIMUM	126.9	7.2218	*****	393.39	90.897	54.567	66.510
MINIMUM	42.0	1.6340	*****	58.40	26.588	0.000	4.400
RANGE	84.9	5.5878	*****	334.99	64.309	54.567	62.110
ARITH. MEAN	83.2	4.0514	*****	216.30	47.965	20.003	19.138
ARITH. STD. DEV.	27.9	1.9585	*****	122.29	20.731	17.727	19.072
GEOM. MEAN	78.9	3.6156	*****	180.66	44.580	12.241	13.784
GEOM. STD. DEV.	1.4	1.6832	*****	1.97	1.485	2.380	2.278
1ST QUARTILE	62.1	2.2162	*****	99.27	32.980	5.486	7.235
2ND QUARTILE	73.4	3.4858	*****	185.80	41.247	12.132	11.331
3RD QUARTILE	96.8	4.8740	*****	288.97	47.340	28.062	20.541
VOL. WGT. MEAN	*****	4.0514	*****	216.30	47.965	20.003	19.138

# OF SAMPLES	KJELDAHL AS N	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N	PHOSPHOR	MANGANESE
:	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
MAXIMUM	77.409	6.979	5.912	46.926	67.257	1.8475	0.6345
MINIMUM	14.600	0.182	0.000	0.518	9.490	0.0000	0.0365
RANGE	62.809	6.797	5.912	46.408	57.767	1.8475	0.5980
ARITH. MEAN	38.177	3.358	2.585	11.383	30.432	0.5650	0.2774
ARITH. STD. DEV.	21.475	2.803	2.049	14.253	18.807	0.5576	0.2415
GEOM. MEAN	32.904	1.754	1.842	6.198	25.412	0.5011	0.1735
GEOM. STD. DEV.	1.801	4.318	2.968	3.529	1.923	2.3318	3.0665
1ST QUARTILE	18.990	0.409	0.451	3.075	14.332	0.1748	0.0529
2ND QUARTILE	28.657	2.584	2.359	6.405	24.906	0.3744	0.1607
3RD QUARTILE	50.159	5.427	3.553	9.063	36.011	0.6375	0.4228
VOL. WGT. MEAN	38.177	3.358	2.585	11.383	30.432	0.5550	0.2774

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MCKELLAR/CUMULATIVE PRECIP. #21

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

# OF SAMPLES	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	PER COEFF
MAXIMUM	9	8	8	8	9	8	8533
MINIMUM	0.0665	1.299	9.3170	1.1775	0.028	8.562	0.4248
RANGE	0.0069	0.309	0.7973	0.0859	0.008	1.080	0.0285
ARITH. MEAN	0.0596	0.990	8.5197	1.0916	0.019	7.482	0.4777
ARITH. STD. DEV	0.0363	0.595	3.6317	0.5700	0.018	3.575	0.1618
GEOM. MEAN	0.0244	0.324	3.1674	0.3194	0.006	2.866	0.1180
GEOM. STD. DEV.	0.0267	0.535	2.5870	0.4692	0.017	2.731	0.1686
1ST QUARTILE	2.5207	1.601	2.4453	2.1618	1.448	2.168	2.7594
2ND QUARTILE	0.0091	0.381	1.1570	0.4171	0.014	1.462	0.0249
3RD QUARTILE	0.0328	0.504	2.8952	0.4999	0.017	2.269	0.1874
VOL. WGT. MEAN	0.0519	0.690	5.4175	0.7313	0.021	5.747	0.2705
	0.0363	0.571	3.4840	0.5468	0.018	3.429	0.1

CADMIUM

# OF SAMPLES	MG/M**2
MAXIMUM	9
MINIMUM	0.02660
RANGE	0.00069
ARITH. MEAN	0.02591
ARITH. STD. DEV	0.00958
GEOM. MEAN	0.00767
GEOM. STD. DEV.	0.00677
1ST QUARTILE	2.79010
2ND QUARTILE	0.00482
3RD QUARTILE	0.00741
VOL. WGT. MEAN	0.00920
	0.00958

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MERLIN/CUMULATIVE PRECIP. #02

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH6.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
13	13	12	0	13	13	11	12
MAXIMUM	153.0	13.1905	*****	725.20	90.280	56.960	126.250
MINIMUM	10.9	0.3076	*****	61.78	12.320	15.300	4.810
RANGE	142.1	12.8829	*****	663.42	77.960	43.660	121.440
ARITH. MEAN	78.3	4.9999	*****	280.57	42.180	34.121	25.854
ARITH. STD. DEV	51.3	3.8855	*****	174.86	22.588	15.284	33.004
GEOM. MEAN	59.0	3.4072	*****	230.91	35.892	30.985	16.569
GEOM. STD. DEV.	2.4	2.8894	*****	1.99	1.860	1.598	2.450
1ST QUANTILE	30.5	2.2604	*****	142.10	21.720	18.880	8.680
2ND QUANTILE	71.5	4.3338	*****	273.80	44.830	29.790	14.495
3RD QUANTILE	106.5	7.9684	*****	317.82	51.510	45.050	24.124
VOL. WGT. MEAN	*****	4.6654	*****	280.57	42.180	32.546	24.124

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
12	12	11	11	11	13	12	12
MAXIMUM	74.000	8.925	9.000	83.750	69.560	1.4900	0.5280
MINIMUM	11.520	3.060	0.510	1.000	3.007	0.0765	0.0765
RANGE	62.480	5.865	8.490	82.750	66.553	1.4135	0.4515
ARITH. MEAN	37.042	5.894	3.426	12.182	27.906	0.6881	0.2228
ARITH. STD. DEV	17.904	2.168	2.655	23.983	18.142	0.4543	0.1713
GEOM. MEAN	32.564	5.513	2.534	4.920	21.464	0.5138	0.2068
GEOM. STD. DEV.	1.763	1.468	2.366	3.509	2.357	2.4709	2.0123
1ST QUANTILE	25.720	3.620	1.132	1.520	13.920	0.2440	0.1000
2ND QUANTILE	36.510	5.397	2.240	4.177	26.075	0.6820	0.2855
3RD QUANTILE	48.100	7.770	4.515	8.910	33.305	1.0340	0.3320
VOL. WGT. MEAN	34.564	5.612	3.268	11.620	27.906	0.6420	0.2359

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MERLIN/CUMULATIVE PRECIP. #02

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	12	13	11	13	13	11	13
MAXIMUM	0.2520	0.840	8.9000	1.1062	0.035	8.545	0.1260
MINIMUM	0.0040	0.222	1.0756	0.0875	0.003	1.207	0.0145
RANGE	0.2480	0.617	7.8244	1.0186	0.032	7.338	0.1115
ARITH. MEAN	0.0539	0.478	4.2810	0.4356	0.019	4.318	0.0452
ARITH. STD. DEV.	0.0753	0.199	2.6438	0.3335	0.011	2.500	0.0352
GEOM. MEAN	0.0268	0.441	3.4985	0.3293	0.015	3.616	0.0342
GEOM. STD. DEV.	3.3962	1.520	2.0180	2.2097	2.291	1.931	1.9956
1ST QUANTILE	0.0105	0.308	1.5632	0.1823	0.006	1.742	0.0292
2ND QUANTILE	0.0299	0.441	3.7957	0.2686	0.018	4.004	0.0657
3RD QUANTILE	0.0405	0.526	5.7131	0.6301	0.028	5.484	0.0848
VOL. WGT. MEAN	0.0503	0.478	4.0124	0.4356	0.019	4.047	0.0652

CADMIUM

	MG/MM#2
# OF SAMPLES	13
MAXIMUM	0.01332
MINIMUM	0.00040
RANGE	0.01292
ARITH. MEAN	0.00618
ARITH. STD. DEV.	0.00384
GEOM. MEAN	0.00450
GEOM. STD. DEV.	2.74872
1ST QUANTILE	0.00333
2ND QUANTILE	0.00535
3RD QUANTILE	0.00867
VOL. WGT. MEAN	0.00618

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOONBEAM/CUMULATIVE PRECIP. #27

PERIOD OF REPORT : JAN 3, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
12	72.0	10	0	12	12	10	12
MAXIMUM	72.0	3.4102	*****	186.55	33.000	23.100	16.470
MINIMUM	12.0	0.2309	*****	26.00	5.600	2.000	0.000
RANGE	60.0	3.1793	*****	160.55	27.400	21.100	16.470
ARITH. MEAN	44.5	1.3955	*****	86.93	13.283	10.888	5.335
ARITH. STD. DEV	19.3	0.9338	*****	49.20	8.129	7.731	5.601
GEOM. MEAN	39.8	1.1145	*****	74.42	11.466	8.206	3.191
GEOM. STD. DEV.	1.7	2.1365	*****	1.82	1.732	2.339	2.980
1ST QUARTILE	33.3	0.6744	*****	49.62	7.260	3.870	1.100
2ND QUARTILE	40.5	1.1004	*****	75.20	9.640	8.050	4.150
3RD QUARTILE	62.0	1.7872	*****	130.15	17.020	15.985	6.805
VOL. WGT. MEAN	*****	1.2832	*****	86.93	13.283	10.012	5.335

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
12	25.460	11	11	11	12	12	11
MAXIMUM	25.460	6.650	2.870	9.882	19.380	0.7920	0.3420
MINIMUM	3.200	0.290	0.075	0.100	1.160	0.0100	0.0150
RANGE	22.260	6.360	2.795	9.782	18.220	0.7820	0.3270
ARITH. MEAN	13.000	2.358	1.251	3.512	7.674	0.3641	0.1788
ARITH. STD. DEV	7.825	1.805	1.063	3.647	6.492	0.2349	0.1055
GEOM. MEAN	10.505	1.735	0.758	1.816	5.157	0.2299	0.1322
GEOM. STD. DEV.	2.075	2.452	3.292	4.029	2.665	3.7445	2.6755
1ST QUARTILE	5.210	0.800	0.295	0.550	2.281	0.1820	0.0490
2ND QUARTILE	14.020	2.100	0.657	1.820	4.920	0.3900	0.2050
3RD QUARTILE	18.218	2.807	2.100	5.290	12.760	0.5202	0.2511
VOL. WGT. MEAN	13.000	2.211	1.173	3.293	7.674	0.3641	0.1677

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOONBEAM/CUMULATIVE PRECIP. #27

PERIOD OF REPORT : JAN 3, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	11	11	10	11	11	11	10
MAXIMUM	0.1900	0.535	3.3563	1.0190	0.029	6.190	0.1870
MINIMUM	0.0030	0.033	0.1894	0.0582	0.000	0.369	0.0100
RANGE	0.1870	0.502	3.1669	0.9608	0.029	5.821	0.1770
ARITH. MEAN	0.0347	0.208	1.5988	0.3414	0.012	2.204	0.0640
ARITH. STD. DEV.	0.0550	0.142	0.9766	0.2783	0.008	1.789	0.0596
GEOM. MEAN	0.0158	0.163	1.2315	0.2454	0.017	1.652	0.0444
GEOM. STD. DEV.	3.4881	2.209	2.4200	2.4822	2.016	2.256	2.4891
1ST QUARTILE	0.0055	0.077	0.6240	0.0839	0.005	0.899	0.0239
2ND QUARTILE	0.0108	0.169	1.6643	0.2764	0.010	1.499	0.0395
3RD QUARTILE	0.0322	0.252	1.9755	0.4594	0.017	2.833	0.0897
VOL. WGT. MEAN	0.0326	0.195	1.4701	0.3202	0.011	2.067	0.0603

CADMIUM

	MG/M**2
# OF SAMPLES	10
MAXIMUM	0.00684
MINIMUM	0.00120
RANGE	0.00564
ARITH. MEAN	0.00392
ARITH. STD. DEV.	0.00179
GEOM. MEAN	0.00348
GEOM. STD. DEV.	1.74418
1ST QUARTILE	0.00198
2ND QUARTILE	0.00420
3RD QUARTILE	0.00481
VOL. WGT. MEAN	0.00360

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOOSENEE/CUMULATIVE PRECIP. #39

PERIOD OF REPORT : DEC 1, 85 TO DEC 29, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
MAXIMUM	1	1	0	1	1	1	1
MINIMUM	29.7	0.1632	*****	17.82	5.940	8.019	7.722
RANGE	29.7	0.1632	*****	17.82	5.940	8.019	7.722
ARITH. MEAN	0.0	0.0000	*****	0.00	0.000	0.000	0.000
ARITH. STD. DEV.	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV.	*****	*****	*****	*****	*****	*****	*****
1ST QUANTILE	*****	*****	*****	*****	*****	*****	*****
2ND QUANTILE	*****	*****	*****	*****	*****	*****	*****
3RD QUANTILE	*****	*****	*****	*****	*****	*****	*****
VOL. WGT. MEAN	*****	*****	*****	*****	*****	*****	*****

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
MAXIMUM	1	1	1	1	1	1	1
MINIMUM	3.267	1.336	0.742	5.494	0.074	0.2970	0.0297
RANGE	3.267	1.336	0.742	5.494	0.074	0.2970	0.0297
ARITH. MEAN	0.000	0.000	0.000	0.000	0.000	0.0000	0.0000
ARITH. STD. DEV.	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV.	*****	*****	*****	*****	*****	*****	*****
1ST QUANTILE	*****	*****	*****	*****	*****	*****	*****
2ND QUANTILE	*****	*****	*****	*****	*****	*****	*****
3RD QUANTILE	*****	*****	*****	*****	*****	*****	*****
VOL. WGT. MEAN	*****	*****	*****	*****	*****	*****	*****

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MOOSEHORN/CUMULATIVE PRECIP. #39

PERIOD OF REPORT : DEC 1, 85 TO DEC 29, 85

PAGE : 2

	NICKEL MG/M**2	ZINC MG/M**2	IRON MG/M**2	LEAD MG/M**2	VANADIUM MG/M**2	ALUMINUM MG/M**2	COPPER MG/M**2
# OF SAMPLES	1	0	1	1	1	1	1
MAXIMUM	0.0148	*****	1.7360	0.2419	0.006	2.011	0.0870
MINIMUM	0.0148	*****	1.7360	0.2419	0.006	2.011	0.0870
RANGE	0.0000	*****	0.0000	0.0000	0.000	0.000	0.0000
ARITH. MEAN	*****	*****	*****	*****	*****	*****	*****
ARITH. STD. DEV.	*****	*****	*****	*****	*****	*****	*****
GEOM. MEAN	*****	*****	*****	*****	*****	*****	*****
GEOM. STD. DEV.	*****	*****	*****	*****	*****	*****	*****
1ST QUANTILE	*****	*****	*****	*****	*****	*****	*****
2ND QUANTILE	*****	*****	*****	*****	*****	*****	*****
3RD QUANTILE	*****	*****	*****	*****	*****	*****	*****
VOL. WGT. MEAN	*****	*****	*****	*****	*****	*****	*****

CADMIUM
MG/M**2

# OF SAMPLES	1
MAXIMUM	0.02257
MINIMUM	0.02257
RANGE	0.00000
ARITH. MEAN	*****
ARITH. STD. DEV.	*****
GEOM. MEAN	*****
GEOM. STD. DEV.	*****
1ST QUANTILE	*****
2ND QUANTILE	*****
3RD QUANTILE	*****
VOL. WGT. MEAN	*****

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : OTTER ISLAND/CUMULATIVE PRECIP. #38

PERIOD OF REPORT : APR 23, 85 TO NOV 5, 85

PAGE : 1

PRECIP.		FREE H+		TOTAL H+		SULPHATE		NITRATE		CALCIUM		CHLORIDE	
MM		LAB		TO PH0.3		MG/MM#2		AS N		MG/MM#2		MG/MM#2	
# OF SAMPLES	7	7		0		7		7		7		7	
MAXIMUM	166.9	6.2009		*****		342.14		60.084		40.376		14.420	
MINIMUM	41.0	1.2954		*****		109.20		15.120		6.540		0.000	
RANGE	125.9	4.9056		*****		232.94		44.964		33.836		14.420	
ARITH. MEAN	93.0	3.1464		*****		219.69		30.459		20.340		5.173	
ARITH. STD. DEV	48.3	1.7754		*****		103.21		16.213		12.116		5.553	
GEOM. MEAN	82.6	2.7468		*****		198.49		27.165		17.277		3.444	
GEOM. STD. DEV.	1.7	1.7618		*****		1.64		1.667		1.884		2.353	
1ST QUARTILE	47.5	1.5009		*****		115.35		15.750		8.940		0.870	
2ND QUARTILE	68.0	2.2088		*****		163.10		23.555		13.990		2.337	
3RD QUARTILE	126.6	4.2023		*****		319.39		37.259		28.071		7.686	
VOL. WGT. MEAN	*****	3.1464		*****		219.69		30.459		20.340		5.173	

KJELDAHL		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM		PHOSPHOR		MANGANESE	
AS N		MG/MM#2		MG/MM#2		MG/MM#2		AS N		MG/MM#2		MG/MM#2	
# OF SAMPLES	7	7		7		7		7		7		7	
MAXIMUM	54.500	5.800		3.690		7.931		45.235		1.0900		0.5007	
MINIMUM	16.360	0.585		0.585		0.780		14.430		0.0540		0.0390	
RANGE	38.120	5.215		3.105		7.151		30.805		1.0360		0.4617	
ARITH. MEAN	33.737	3.299		2.157		3.128		29.991		0.4444		0.2954	
ARITH. STD. DEV	14.091	1.748		1.107		2.964		11.018		0.4343		0.1608	
GEOM. MEAN	30.972	2.738		1.852		2.103		28.051		0.2586		0.2351	
GEOM. STD. DEV.	1.588	2.140		1.912		2.616		1.508		3.3951		2.3980	
1ST QUARTILE	17.005	1.372		0.918		0.799		16.747		0.0577		0.1005	
2ND QUARTILE	32.660	2.967		1.980		1.410		29.105		0.2449		0.2877	
3RD QUARTILE	41.164	4.306		2.804		4.773		36.497		0.7077		0.3955	
VOL. WGT. MEAN	33.737	3.299		2.157		3.128		29.991		0.4444		0.2954	

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : OTTER ISLAND/CUMULATIVE PRECIP. #38

PERIOD OF REPORT : APR 23, 85 TO NOV 5, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	7	7	7	7	7	7	7
MAXIMUM	0.1090	1.221	6.5425	0.8858	0.055	8.542	0.3205
MINIMUM	0.0041	0.171	0.6397	0.0931	0.008	0.906	0.0087
RANGE	0.1049	1.050	5.9028	0.7928	0.046	7.636	0.3117
ARITH. MEAN	0.0302	0.581	3.1531	0.3838	0.023	4.077	0.0853
ARITH. STD. DEV.	0.0367	0.379	2.3453	0.2779	0.017	3.270	0.1100
GEOM. MEAN	0.0171	0.470	2.3998	0.2988	0.019	3.005	0.0451
GEOM. STD. DEV.	3.2255	2.093	2.3210	2.2200	2.006	2.373	3.3872
1ST QUARTILE	0.0047	0.183	0.8979	0.1200	0.009	1.340	0.0148
2ND QUARTILE	0.0155	0.472	2.3599	0.2887	0.014	1.977	0.0261
3RD QUARTILE	0.0311	0.767	4.5069	0.4917	0.031	6.680	0.0975
VOL. WGT. MEAN	0.0302	0.581	3.1531	0.3838	0.023	4.077	0.0853

CADMIUM

	MG/M**2
# OF SAMPLES	7
MAXIMUM	0.05014
MINIMUM	0.00108
RANGE	0.04906
ARITH. MEAN	0.01186
ARITH. STD. DEV.	0.01727
GEOM. MEAN	0.00575
GEOM. STD. DEV.	3.63591
1ST QUARTILE	0.00132
2ND QUARTILE	0.00545
3RD QUARTILE	0.00968
VOL. WGT. MEAN	0.01186

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PALMERSTON/CUMULATIVE PRECIP. #08

PERIOD OF REPORT : DEC 31, 84 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH0.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
:	13	12	0	12	12	12	12
MAXIMUM	: 225.0	14.5272	*****	720.00	101.250	53.900	19.800
MINIMUM	: 15.0	0.1868	*****	57.20	12.150	7.590	2.850
RANGE	: 210.0	14.3404	*****	662.80	89.100	46.310	16.950
ARITH. MEAN	: 79.5	3.0499	*****	240.24	39.122	26.088	10.735
ARITH. STD. DEV	: 52.5	3.8281	*****	177.41	23.668	16.750	5.827
GEOM. MEAN	: 65.2	1.8507	*****	196.11	33.688	20.897	9.188
GEOM. STD. DEV.	: 2.0	2.9037	*****	1.93	1.776	2.068	1.839
1ST QUANTILE	: 48.5	1.0353	*****	143.85	27.100	10.380	6.350
2ND QUANTILE	: 69.0	1.9897	*****	206.45	32.825	25.725	9.250
3RD QUANTILE	: 92.5	2.9905	*****	230.87	46.550	39.150	16.100
VOL. WGT. MEAN	: *****	3.0104	*****	237.13	58.614	25.750	10.596

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
:	12	12	11	12	12	12	12
MAXIMUM	: 147.400	12.650	5.100	8.585	126.500	11.0000	0.7700
MINIMUM	: 11.550	2.185	0.177	0.675	9.360	0.0300	0.0475
RANGE	: 135.850	10.465	4.922	7.910	117.140	10.9700	0.7225
ARITH. MEAN	: 47.650	5.325	2.351	4.090	41.659	1.4773	0.2727
ARITH. S.D. DEV	: 37.510	3.432	1.576	2.450	32.264	3.0339	0.2063
GEOM. MEAN	: 37.555	4.502	1.668	3.337	32.712	0.5265	0.2058
GEOM. STD. DEV.	: 2.052	1.803	2.832	2.061	2.089	4.3389	2.2818
1ST QUANTILE	: 26.960	2.762	0.705	2.250	24.637	0.3375	0.1025
2ND QUANTILE	: 35.785	4.112	1.850	3.355	32.420	0.5550	0.2400
3RD QUANTILE	: 52.875	6.637	3.075	5.765	47.250	1.0825	0.3930
VOL. WGT. MEAN	: 47.032	5.256	2.400	4.037	41.119	1.4582	0.2692

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PALMERSTON/CUMULATIVE PRECIP. #08

PERIOD OF REPORT : DEC 31, 84 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.2475	1.115	7.4206	0.9185	0.045	5.601	0.2611
MINIMUM	0.0045	0.130	1.1250	0.1350	0.003	1.194	0.0130
RANGE	0.2430	0.985	6.2956	0.7835	0.042	4.407	0.2481
ARITH. MEAN	0.0541	0.567	3.7792	0.4834	0.018	3.335	0.1034
ARITH. STD. DEV.	0.0703	0.312	2.4472	0.2565	0.010	1.765	0.0823
GEOM. MEAN	0.0272	0.473	3.0371	0.4139	0.015	2.895	0.0748
GEOM. STD. DEV.	3.4812	1.982	2.0390	1.8578	1.921	1.764	2.4288
1ST QUARTILE	0.0133	0.349	1.6427	0.2509	0.012	1.796	0.0466
2ND QUARTILE	0.0225	0.552	2.9760	0.5046	0.017	2.536	0.0592
3RD QUARTILE	0.0815	0.830	6.4080	0.5823	0.021	5.186	0.1619
VOL. MGT. MEAN	0.0534	0.559	3.7302	0.4772	0.018	3.292	0.1021

	CADMIUM
	MG/MM#2
# OF SAMPLES	12
MAXIMUM	0.04040
MINIMUM	0.00240
RANGE	0.03800
ARITH. MEAN	0.01124
ARITH. STD. DEV.	0.01146
GEOM. MEAN	0.00760
GEOM. STD. DEV.	2.44237
1ST QUARTILE	0.00410
2ND QUARTILE	0.00686
3RD QUARTILE	0.01627
VOL. MGT. MEAN	0.01110

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PICKLE LAKE/CUMULATIVE PRECIP. #36

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

PRECIP.		FREE H+		TOTAL H+		SULPHATE		NITRATE		CALCIUM		CHLORIDE	
MM		LAB		TO PH8.3		MG/MM#2		AS N		MG/MM#2		MG/MM#2	
# OF SAMPLES	11	10		0		11		11		11		11	
MAXIMUM	173.2	1.7323	*****	*****		109.48		16.800		203.740		26.400	
MINIMUM	10.8	0.0094	*****	*****		7.32		1.281		1.647		1.358	
RANGE	162.4	1.7226	*****	*****		102.16		15.519		202.093		25.042	
ARITH. MEAN	80.7	0.5795	*****	*****		53.58		8.299		27.718		8.286	
ARITH. STD. DEV.	55.1	0.5165	*****	*****		38.08		6.134		58.721		9.171	
GEOM. MEAN	57.6	0.3103	*****	*****		37.67		5.857		10.251		5.199	
GEOM. STD. DEV.	2.7	4.6336	*****	*****		2.70		2.601		3.675		2.655	
1ST QUARTILE	17.1	0.1055	*****	*****		12.45		1.983		3.192		2.348	
2ND QUARTILE	80.9	0.4468	*****	*****		40.29		5.392		10.348		3.358	
3RD QUARTILE	121.0	0.7927	*****	*****		88.05		14.068		17.974		8.554	
VOL. WGT. MEAN	*****	0.6108	*****	*****		53.58		8.299		27.718		8.286	

KJELDAHL		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM		PHOSPHOR		MANGANESE	
AS N		MG/MM#2		MG/MM#2		MG/MM#2		AS N		MG/MM#2		MG/MM#2	
# OF SAMPLES	11	11		11		11		11		11		10	
MAXIMUM	65.880	31.110		14.030		19.052		24.910		7.6860		5.0020	
MINIMUM	1.836	0.324		0.540		0.337		0.000		0.1281		0.0183	
RANGE	64.044	30.786		13.490		18.715		24.910		7.5579		4.9837	
ARITH. MEAN	18.962	3.856		2.658		4.917		7.506		1.3927		0.6442	
ARITH. STD. DEV.	19.203	9.073		3.934		5.101		9.485		2.2737		1.5382	
GEOM. MEAN	11.107	1.232		1.524		3.301		3.583		0.5306		0.1453	
GEOM. STD. DEV.	3.255	3.580		2.644		2.712		3.330		4.0432		5.1054	
1ST QUARTILE	3.027	0.468		0.660		2.150		0.433		0.1614		0.0338	
2ND QUARTILE	11.517	0.799		1.025		2.910		2.630		0.2579		0.1400	
3RD QUARTILE	24.128	1.952		2.294		5.450		11.094		1.5537		0.2684	
VOL. WGT. MEAN	18.962	3.856		2.658		4.917		7.506		1.3927		0.6342	

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PICKLE LAKE/CUMULATIVE PRECIP. #36

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	10	10	10	10	10	10	10
MAXIMUM	0.7621	0.957	47.8606	1.7407	0.171	28.487	1.0620
MINIMUM	0.0016	0.076	0.3714	0.0230	0.002	0.505	0.0294
RANGE	0.7605	0.881	47.4892	1.7176	0.169	27.982	1.0326
ARITH. MEAN	0.1005	0.248	7.5649	0.3763	0.032	4.789	0.1751
ARITH. STD. DEV	0.2372	0.274	14.7635	0.5167	0.050	8.461	0.3168
GEOM. MEAN	0.0162	0.171	1.9473	0.2046	0.016	2.155	0.0831
GEOM. STD. DEV.	6.5183	2.281	5.5089	3.1652	3.431	3.357	2.9299
1ST QUANTILE	0.0047	0.086	0.3840	0.1196	0.005	0.724	0.0376
2ND QUANTILE	0.0113	0.148	1.9792	0.1672	0.019	2.350	0.0683
3RD QUANTILE	0.0208	0.213	4.0665	0.2727	0.025	3.215	0.0897
VOL. WGT. MEAN	0.0990	0.244	7.4470	0.3704	0.031	4.714	0.1724

CADMIUM

	MG/M**2
# OF SAMPLES	10
MAXIMUM	0.02078
MINIMUM	0.00065
RANGE	0.02014
ARITH. MEAN	0.00396
ARITH. STD. DEV	0.00619
GEOM. MEAN	0.00205
GEOM. STD. DEV.	2.90640
1ST QUANTILE	0.00102
2ND QUANTILE	0.00127
3RD QUANTILE	0.00289
VOL. WGT. MEAN	0.00390

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PORT STANLEY/CUMULATIVE PRECIP. #03

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
13	220.0	20.0643	0	13	13	11	13
MAXIMUM	220.0	20.0643	*****	935.00	125.400	60.390	41.730
MINIMUM	13.0	0.2485	*****	78.30	12.740	8.190	2.860
RANGE	207.0	19.8158	*****	856.70	112.660	52.200	38.870
ARITH. MEAN	83.4	5.6284	*****	311.36	51.192	35.796	15.488
ARITH. STD. DEV	56.5	5.1812	*****	219.90	28.657	16.458	9.794
GEOM. MEAN	64.5	3.7366	*****	254.45	43.606	31.486	12.794
GEOM. STD. DEV.	2.3	2.9856	*****	1.95	1.876	1.796	1.987
1ST QUARTILE	37.0	2.4102	*****	143.10	29.425	21.890	9.230
2ND QUARTILE	69.5	4.4711	*****	280.20	50.325	31.580	14.395
3RD QUARTILE	106.0	7.3623	*****	351.67	60.340	47.675	15.795
VOL. MGT. MEAN	*****	5.3383	*****	311.36	51.192	34.634	15.488

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
13	81.740	11.600	12	12	13	13	13
MAXIMUM	81.740	11.600	6.100	6.550	67.100	3.5670	0.9760
MINIMUM	10.920	1.365	0.000	0.715	5.075	0.0000	0.0650
RANGE	70.820	10.235	6.100	7.835	62.025	3.5670	0.9110
ARITH. MEAN	39.965	6.593	2.510	4.619	33.025	0.8390	0.2748
ARITH. STD. DEV	24.538	2.912	1.941	2.375	21.171	1.0901	0.3204
GEOM. MEAN	32.982	5.871	1.999	3.844	25.989	0.5333	0.2184
GEOM. STD. DEV.	1.948	1.749	2.118	2.060	2.192	2.9871	2.1184
1ST QUARTILE	19.345	4.792	0.919	2.697	15.820	0.1335	0.2120
2ND QUARTILE	29.135	6.017	2.250	5.235	24.652	0.4685	0.3035
3RD QUARTILE	54.935	8.640	3.892	5.550	43.045	0.6610	0.4630
VOL. MGT. MEAN	39.965	6.752	2.570	4.731	33.025	0.8390	0.4042

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PORT STANLEY/CUMULATIVE PRECIP. 803

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/H**2	MG/H**2	MG/H**2	MG/H**2	MG/H**2	MG/H**2	MG/H**2
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.2640	1.267	25.6853	1.2825	0.044	25.868	0.2630
MINIMUM	0.0026	0.143	0.8111	0.0881	0.003	1.399	0.0171
RANGE	0.2614	1.124	24.8742	1.1944	0.041	24.469	0.2460
ARITH. MEAN	0.0561	0.585	6.7050	0.4988	0.022	7.175	0.1073
ARITH. STD. DEV.	0.0723	0.336	7.0838	0.3628	0.013	6.901	0.0801
GEOM. MEAN	0.0299	0.487	4.3467	0.3699	0.017	5.202	0.0806
GEOM. STD. DEV.	3.3678	1.961	2.6234	2.3917	2.415	2.230	2.2859
1ST QUANTILE	0.0107	0.297	2.1367	0.1861	0.011	2.711	0.0459
2ND QUANTILE	0.0275	0.496	3.0765	0.4254	0.021	4.589	0.0677
3RD QUANTILE	0.0535	0.751	7.3364	0.6137	0.028	6.638	0.1325
VOL. WGT. MEAN	0.0561	0.585	6.7050	0.4988	0.022	7.175	0.1073

CADMIUM

	MG/H**2
# OF SAMPLES	13
MAXIMUM	0.01575
MINIMUM	0.00078
RANGE	0.01497
ARITH. MEAN	0.00687
ARITH. STD. DEV.	0.00448
GEOM. MEAN	0.00524
GEOM. STD. DEV.	2.37041
1ST QUANTILE	0.00312
2ND QUANTILE	0.00636
3RD QUANTILE	0.00853
VOL. WGT. MEAN	0.00687

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/CUMULATIVE PRECIP. #32

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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# OF SAMPLES	PRECIP.	FREE H+ LAB	TOTAL H+ TO PH0.3	SULPHATE	NITRATE AS N	CALCIUM	CHLORIDE
:	MM	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
MAXIMUM	12	12	0	12	12	12	12
MINIMUM	211.0	2.1595	*****	189.60	36.340	64.780	23.700
RANGE	8.9	0.0234	*****	8.90	3.196	0.979	1.424
ARITH. MEAN	202.1	2.1361	*****	180.70	33.144	63.801	22.276
ARITH. STD. DEV	74.8	0.8366	*****	79.79	15.630	18.445	8.099
GEOM. MEAN	63.9	0.6652	*****	62.86	10.232	17.934	6.077
GEOM. STD. DEV.	51.6	0.3562	*****	50.53	12.158	10.746	6.189
1ST QUARTILE	2.6	3.5044	*****	3.09	2.226	3.476	2.250
2ND QUARTILE	23.7	0.2020	*****	18.91	6.187	5.187	3.859
3RD QUARTILE	61.1	0.3232	*****	69.05	16.297	16.085	6.953
VOL. MGT. MEAN	110.0	1.0717	*****	131.08	22.310	26.935	10.510
	*****	0.6366	*****	79.79	15.630	18.445	8.099

# OF SAMPLES	KJELDAHL AS N	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N	PHOSPHOR	MANGANESE
:	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
MAXIMUM	12	12	12	12	12	12	11
MINIMUM	109.020	9.480	10.270	9.495	69.520	2.2120	1.1060
RANGE	1.880	0.044	0.000	1.112	0.000	0.1513	0.0178
ARITH. MEAN	107.140	9.435	10.270	8.383	69.520	2.0607	1.0882
ARITH. STD. DEV	27.793	2.411	2.681	4.734	19.415	0.8023	0.2922
GEOM. MEAN	30.588	2.674	3.055	2.795	19.955	0.6720	0.3134
GEOM. STD. DEV.	14.936	1.134	1.396	3.778	9.023	0.5534	0.1692
1ST QUARTILE	3.568	4.875	3.992	2.169	4.026	2.5549	3.3757
2ND QUARTILE	5.328	0.707	0.361	1.961	2.464	0.2295	0.0428
3RD QUARTILE	20.727	1.519	1.502	4.868	20.814	0.5810	0.2020
VOL. MGT. MEAN	39.117	2.912	4.470	6.781	28.252	1.2570	0.2912
	27.793	2.411	2.681	4.734	19.415	0.8023	0.2751

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/CUMULATIVE PRECIP. #32

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.0740	0.445	11.1279	0.5867	0.042	14.449	0.2476
MINIMUM	0.0024	0.036	0.4409	0.0255	0.002	0.379	0.0045
RANGE	0.0716	0.408	10.6871	0.5612	0.040	14.070	0.2430
ARITH. MEAN	0.0218	0.195	2.8262	0.1814	0.016	3.469	0.0659
ARITH. STD. DEV	0.0219	0.125	2.9788	0.1637	0.013	3.861	0.0708
GEOM. MEAN	0.0135	0.154	1.8577	0.1204	0.011	2.199	0.0370
GEOM. STD. DEV.	2.9492	2.177	2.6978	2.7654	2.629	2.851	3.4663
1ST QUANTILE	0.0045	0.064	0.5012	0.0372	0.004	0.621	0.0119
2ND QUANTILE	0.0135	0.172	2.3674	0.1576	0.012	2.741	0.0410
3RD QUANTILE	0.0261	0.253	2.7556	0.2186	0.022	3.519	0.0901
VOL. WGT. MEAN	0.0205	0.183	2.6600	0.1708	0.015	3.265	0.0620

CADMIUM

	MG/MM#2
# OF SAMPLES	11
MAXIMUM	0.00790
MINIMUM	0.00027
RANGE	0.00763
ARITH. MEAN	0.00322
ARITH. STD. DEV	0.00244
GEOM. MEAN	0.00226
GEOM. STD. DEV.	2.71734
1ST QUANTILE	0.00111
2ND QUANTILE	0.00192
3RD QUANTILE	0.00467
VOL. WGT. MEAN	0.00303

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SHALLOW LAKE/CUMULATIVE PRECIP. #09

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH6.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
MAXIMUM	13	11	0	11	11	10	11
MINIMUM	176.0	10.6051	*****	572.00	88.110	58.320	24.030
RANGE	47.0	2.0994	*****	116.00	31.020	9.280	3.450
ARITH. MEAN	129.0	8.5056	*****	456.00	57.090	49.040	20.580
ARITH. STD. DEV	90.5	4.5917	*****	290.19	49.658	32.723	11.292
GEOM. MEAN	34.9	2.5021	*****	118.28	18.151	14.691	6.021
GEOM. STD. DEV.	84.7	4.0816	*****	269.62	46.955	29.293	9.773
1ST QUARTILE	1.5	1.6436	*****	1.50	1.411	1.705	1.802
2ND QUARTILE	59.0	2.5786	*****	202.77	34.255	22.145	5.220
3RD QUARTILE	90.5	3.3418	*****	261.50	38.960	29.270	11.000
VOL. WGT. MEAN	106.0	5.8801	*****	347.37	59.380	39.380	14.720
	*****	4.5149	*****	285.34	48.828	32.816	11.103

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
MAXIMUM	11	10	10	10	11	11	11
MINIMUM	86.240	8.400	9.660	10.680	71.280	1.2460	0.7120
RANGE	20.880	2.300	0.000	0.530	17.600	0.1175	0.0550
ARITH. MEAN	65.360	6.100	9.660	10.150	53.680	1.1285	0.6570
ARITH. STD. DEV	49.714	5.552	2.563	4.760	40.732	0.5599	0.3051
GEOM. MEAN	23.619	1.942	2.845	3.448	18.421	0.4575	0.2362
GEOM. STD. DEV.	44.662	5.191	1.796	3.471	36.763	0.3828	0.2117
1ST QUARTILE	1.836	1.508	2.453	1.690	1.631	2.6032	2.6539
2ND QUARTILE	27.000	3.967	0.555	3.920	20.920	0.1415	0.0577
3RD QUARTILE	41.865	5.460	1.710	3.925	37.962	0.2630	0.1920
VOL. WGT. MEAN	66.760	6.335	3.065	6.680	52.252	0.9060	0.4815
	48.882	5.569	2.570	4.774	40.051	0.5505	0.3000

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SHALLOW LAKE/CUMULATIVE PRECIP. #09

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	11	10	11	11	11	11	11
MAXIMUM	0.2112	0.738	7.9468	1.0101	0.080	8.953	0.1622
MINIMUM	0.0047	0.133	0.7672	0.1233	0.009	1.391	0.0093
RANGE	0.2065	0.605	7.1796	0.8868	0.071	7.563	0.1529
ARITH. MEAN	0.0401	0.397	3.5556	0.4996	0.027	3.737	0.0765
ARITH. STD. DEV.	0.0602	0.206	2.4983	0.3103	0.022	2.530	0.0515
GEOM. MEAN	0.0203	0.351	2.7272	0.4034	0.021	3.082	0.0566
GEOM. STD. DEV.	3.1505	1.713	2.2410	2.0661	1.983	1.903	2.5203
1ST QUARTILE	0.0071	0.244	1.0946	0.1859	0.011	1.497	0.0227
2ND QUARTILE	0.0162	0.332	2.8377	0.3975	0.020	2.710	0.0734
3RD QUARTILE	0.0368	0.480	4.8809	0.7059	0.029	4.691	0.1047
VOL. WGT. MEAN	0.0394	0.391	3.4962	0.4912	0.026	3.675	0.0752

CADMIUM

	MG/M**2
# OF SAMPLES	10
MAXIMUM	0.01335
MINIMUM	0.00106
RANGE	0.01229
ARITH. MEAN	0.00611
ARITH. STD. DEV.	0.00394
GEOM. MEAN	0.00487
GEOM. STD. DEV.	2.15636
1ST QUARTILE	0.00282
2ND QUARTILE	0.00550
3RD QUARTILE	0.00786
VOL. WGT. MEAN	0.00601

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SMITH'S FALLS/CUMULATIVE PRECIP. #15

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH6.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
:	13	12	0	13	13	11	13
MAXIMUM	110.0	5.2649	*****	341.00	40.700	45.260	17.100
MINIMUM	4.0	0.2249	*****	17.40	2.960	2.000	0.480
RANGE	106.0	5.0400	*****	323.60	37.740	43.260	16.620
ARITH. MEAN	54.2	2.5261	*****	146.10	28.609	17.763	8.623
ARITH. STD. DEV	26.2	1.2795	*****	92.43	10.593	12.674	5.352
GEOM. MEAN	44.6	2.0838	*****	111.64	24.899	12.608	6.208
GEOM. STD. DEV.	2.3	2.2112	*****	2.40	2.004	2.633	2.840
1ST QUARTILE	33.5	1.7950	*****	69.55	22.690	4.465	4.260
2ND QUARTILE	59.5	2.4324	*****	133.80	31.415	16.140	7.560
3RD QUARTILE	64.5	3.0881	*****	197.22	34.390	24.367	11.350
VOL. WGT. MEAN	*****	2.4870	*****	146.10	28.609	17.601	8.623

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
:	13	11	12	12	13	13	13
MAXIMUM	43.770	15.500	4.900	10.260	32.400	0.7040	0.4452
MINIMUM	4.120	0.325	0.000	0.200	2.100	0.0060	0.0280
RANGE	39.650	15.175	4.900	10.060	30.300	0.6980	0.4172
ARITH. MEAN	21.091	3.967	1.754	3.467	15.714	0.2435	0.1831
ARITH. STD. DEV	12.735	4.271	1.665	2.832	10.832	0.2029	0.1521
GEOM. MEAN	16.854	2.270	1.030	2.369	11.757	0.1488	0.1225
GEOM. STD. DEV.	2.144	3.421	3.800	2.850	2.388	3.5991	2.7065
1ST QUARTILE	9.210	0.470	0.154	1.362	6.628	0.0872	0.0500
2ND QUARTILE	19.205	2.980	1.702	2.800	11.535	0.1697	0.1195
3RD QUARTILE	27.730	4.811	2.740	5.180	22.345	0.3110	0.2460
VOL. WGT. MEAN	21.091	3.931	1.767	3.493	15.714	0.2435	0.1831

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SMITH'S FALLS/CUMULATIVE PRECIP. #15

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	13	13	13	12	13	13	13
MAXIMUM	0.0544	1.468	4.6890	0.5427	0.030	6.414	0.1722
MINIMUM	0.0004	0.038	0.2032	0.0340	0.002	0.227	0.0033
RANGE	0.0540	1.430	4.4858	0.5088	0.029	6.187	0.1689
ARITH. MEAN	0.0250	0.461	2.1828	0.2917	0.014	2.234	0.0694
ARITH. STD. DEV.	0.0192	0.432	1.6024	0.1635	0.008	1.776	0.0561
GEOM. MEAN	0.0145	0.299	1.5246	0.2288	0.011	1.627	0.0428
GEOM. STD. DEV.	4.1241	2.854	2.7044	2.3420	2.152	2.444	3.3963
1ST QUARTILE	0.0062	0.162	0.8566	0.1581	0.007	0.921	0.0232
2ND QUARTILE	0.0214	0.294	1.6408	0.3273	0.012	1.640	0.0493
3RD QUARTILE	0.0374	0.514	3.4021	0.4138	0.014	2.792	0.0924
VOL. MGT. MEAN	0.0250	0.461	2.1828	0.2872	0.014	2.234	0.0694

CADMIUM

	MG/MM#2
# OF SAMPLES	13
MAXIMUM	0.02968
MINIMUM	0.00004
RANGE	0.02964
ARITH. MEAN	0.00810
ARITH. STD. DEV.	0.00916
GEOM. MEAN	0.00361
GEOM. STD. DEV.	5.46358
1ST QUARTILE	0.00185
2ND QUARTILE	0.00323
3RD QUARTILE	0.00793
VOL. MGT. MEAN	0.00810

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : TURKEY LAKE/CUMULATIVE PRECIP. #37
PERIOD OF REPORT : JAN 1, 85 TO DEC 31, 85

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# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
MAXIMUM	11	11	0	11	11	11	11
MINIMUM	102.4	8.3867	*****	592.83	68.693	35.984	12.233
RANGE	15.9	0.3172	*****	12.72	4.611	1.590	0.873
ARITH. MEAN	86.5	8.0694	*****	580.11	64.082	34.394	11.360
ARITH. STD. DEV.	61.5	2.4377	*****	166.79	26.548	15.631	4.103
GEOM. MEAN	33.1	2.2348	*****	163.77	17.809	13.604	3.445
GEOM. STD. DEV.	51.8	1.7342	*****	104.40	20.861	9.475	2.988
1ST QUARTILE	1.9	2.4515	*****	3.06	2.213	3.220	2.339
2ND QUARTILE	26.8	0.8241	*****	38.41	9.647	2.577	1.300
3RD QUARTILE	54.1	1.5659	*****	104.57	25.392	9.971	2.630
VOL. WGT. MEAN	90.7	2.8993	*****	226.37	34.353	27.380	5.918
	*****	2.4377	*****	166.79	26.548	15.631	4.103

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
MAXIMUM	11	11	10	11	11	11	11
MINIMUM	77.162	9.881	5.922	8.730	68.693	1.1466	1.1264
RANGE	2.544	0.219	0.000	0.097	1.510	0.0486	0.0292
ARITH. MEAN	74.618	9.662	5.922	8.633	67.182	1.0980	1.0972
ARITH. STD. DEV.	29.964	3.392	2.443	2.503	23.722	0.4271	0.3818
GEOM. MEAN	25.239	3.151	2.406	2.371	21.122	0.3833	0.3306
GEOM. STD. DEV.	18.277	1.863	1.561	1.435	13.852	0.2437	0.2302
1ST QUARTILE	3.327	3.787	3.002	3.849	3.506	3.4398	3.4289
2ND QUARTILE	4.824	0.423	0.423	0.369	4.093	0.0584	0.0523
3RD QUARTILE	20.136	2.323	1.071	2.257	16.558	0.2617	0.3022
VOL. WGT. MEAN	48.222	4.897	4.753	2.699	35.957	0.7348	0.5163
	29.964	3.392	2.617	2.503	23.722	0.4271	0.3818

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

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STATION NAME : TURKEY LAKE/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 1, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	10	10	10	11	10	10	11
MAXIMUM	0.0659	0.863	23.9230	1.6617	0.049	17.928	0.2259
MINIMUM	0.0029	0.045	0.2462	0.0373	0.003	0.274	0.0040
RANGE	0.0629	0.817	23.6768	1.6245	0.046	17.654	0.2219
ARITH. MEAN	0.0223	0.403	4.8656	0.4114	0.020	4.321	0.0659
ARITH. STD. DEV	0.0191	0.297	7.1311	0.4584	0.016	5.452	0.0641
GEOM. MEAN	0.0154	0.271	2.0481	0.2646	0.014	2.110	0.0412
GEOM. STD. DEV.	2.6848	2.943	4.3944	2.7141	2.599	3.905	3.0980
1ST QUANTILE	0.0066	0.103	0.3804	0.1428	0.005	0.496	0.0166
2ND QUANTILE	0.0169	0.403	2.8887	0.2515	0.017	2.831	0.0416
3RD QUANTILE	0.0252	0.595	4.2081	0.3938	0.028	3.737	0.0913
VOL. WGT. MEAN	0.0215	0.389	4.6937	0.4114	0.019	4.168	0.0659

CADMIUM

	MG/M**2
# OF SAMPLES	11
MAXIMUM	0.00941
MINIMUM	0.00064
RANGE	0.00877
ARITH. MEAN	0.00485
ARITH. STD. DEV	0.00296
GEOM. MEAN	0.00384
GEOM. STD. DEV.	2.23999
1ST QUANTILE	0.00209
2ND QUANTILE	0.00453
3RD QUANTILE	0.00671
VOL. WGT. MEAN	0.00485

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : UXBRIDGE/CUMULATIVE PRECIP. #11

PERIOD OF REPORT : JAN 2, 85 TO JAN 7, 86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH6.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
MAXIMUM	170.0	8.3712	0	433.50	111.320	56.870	71.390
MINIMUM	1.5	0.0180	*****	5.25	0.870	0.000	0.180
RANGE	168.5	8.3531	*****	428.25	110.450	56.870	71.210
ARITH. MEAN	75.1	3.7302	*****	211.06	41.166	21.110	16.097
ARITH. STD. DEV.	55.7	3.1173	*****	154.26	36.027	23.711	22.847
GEOM. MEAN	44.6	1.7531	*****	125.70	22.933	8.844	6.881
GEOM. STD. DEV.	4.3	7.2329	*****	4.27	4.516	4.102	5.565
1ST QUARTILE	24.5	1.4368	*****	79.47	15.020	0.645	5.250
2ND QUARTILE	57.5	2.6042	*****	216.50	31.900	12.150	9.855
3RD QUARTILE	109.5	6.6852	*****	328.90	61.650	28.200	13.500
VOL. WGT. MEAN	*****	3.6688	*****	196.03	38.234	17.866	14.951

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
MAXIMUM	69.700	8.125	7.650	29.645	57.800	0.9100	0.7150
MINIMUM	1.320	0.000	0.045	0.090	0.000	0.0000	0.0150
RANGE	68.380	8.125	7.605	29.555	57.800	0.9100	0.7000
ARITH. MEAN	31.219	3.654	3.419	6.902	21.790	0.2950	0.2761
ARITH. STD. DEV.	25.669	3.221	2.512	9.728	10.735	0.3497	0.2601
GEOM. MEAN	18.294	2.313	1.891	2.588	10.735	0.2228	0.1520
GEOM. STD. DEV.	3.822	3.508	5.216	6.041	3.605	3.5532	3.8295
1ST QUARTILE	9.610	0.105	1.250	1.375	3.261	0.0472	0.0572
2ND QUARTILE	28.950	2.500	3.557	3.812	10.650	0.1450	0.1850
3RD QUARTILE	50.805	6.122	5.020	7.552	35.167	0.5327	0.4970
VOL. WGT. MEAN	28.995	3.219	3.175	6.410	21.790	0.2740	0.2564

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

#11

STATION NAME : UXBRIDGE/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2, 85 TO JAN 7, 86

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	8	8	8	8	8	8	8
MAXIMUM	0.1331	1.687	6.4723	1.0842	0.034	5.999	0.1445
MINIMUM	0.0001	0.011	0.2088	0.0139	0.000	0.181	0.0019
RANGE	0.1329	1.675	6.2635	1.0703	0.034	5.818	0.1426
ARITH. MEAN	0.0325	0.518	2.8278	0.5195	0.019	2.558	0.0668
ARITH. STD. DEV.	0.0423	0.504	2.3236	0.3776	0.013	2.126	0.0450
GEOM. MEAN	0.0133	0.299	1.8883	0.3179	0.011	1.535	0.0436
GEOM. STD. DEV.	7.2471	4.274	3.0096	4.0942	4.973	3.589	3.8602
1ST QUARTILE	0.0109	0.244	1.3775	0.2195	0.007	0.667	0.0421
2ND QUARTILE	0.0205	0.468	1.6304	0.4570	0.022	2.471	0.0547
3RD QUARTILE	0.0320	0.510	4.9626	0.8524	0.028	4.002	0.0374
VOL. WGT. MEAN	0.0302	0.481	2.6263	0.4825	0.017	2.375	0.0621

CADMIUM

	MG/M**2
# OF SAMPLES	8
MAXIMUM	0.03146
MINIMUM	0.00030
RANGE	0.03116
ARITH. MEAN	0.00832
ARITH. STD. DEV.	0.00993
GEOM. MEAN	0.00438
GEOM. STD. DEV.	3.97385
1ST QUARTILE	0.00253
2ND QUARTILE	0.00585
3RD QUARTILE	0.00900
VOL. WGT. MEAN	0.00772

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WATERLOO/CUMULATIVE PRECIP. #07

PERIOD OF REPORT : JAN 1, 85 TO DEC 31, 85

PAGE : 1

	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH0.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
# OF SAMPLES	13	13	0	13	13	12	13
MAXIMUM	189.0	16.0865	*****	784.35	94.500	120.960	44.220
MINIMUM	26.0	0.0033	*****	24.50	1.750	2.680	1.050
RANGE	163.0	16.0833	*****	759.85	92.750	118.280	43.170
ARITH. MEAN	86.5	4.0520	*****	279.79	45.243	34.994	16.525
ARITH. STD. DEV	47.7	4.2675	*****	185.89	28.303	32.161	11.768
GEOM. MEAN	74.3	1.6845	*****	217.34	31.699	22.171	12.065
GEOM. STD. DEV.	1.8	8.4715	*****	2.36	3.064	3.142	2.634
1ST QUARTILE	47.5	1.0384	*****	165.55	22.210	14.415	7.970
2ND QUARTILE	73.0	2.6787	*****	273.90	42.750	28.770	14.175
3RD QUARTILE	108.0	4.7565	*****	291.10	64.560	48.670	19.090
VOL. WGT. MEAN	*****	4.0520	*****	279.79	45.243	33.066	16.525

	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
# OF SAMPLES	13	13	12	13	13	12	13
MAXIMUM	86.880	29.040	5.280	24.790	69.600	1.7760	1.0080
MINIMUM	5.600	0.350	0.235	1.400	2.100	0.0700	0.0350
RANGE	81.280	28.690	5.045	23.390	67.500	1.7060	0.9730
ARITH. MEAN	45.843	7.601	2.381	6.791	34.091	0.6485	0.3985
ARITH. STD. DEV	25.837	7.290	1.565	6.678	19.368	0.5389	0.2968
GEOM. MEAN	37.355	5.120	1.745	4.581	26.499	0.4126	0.2960
GEOM. STD. DEV.	2.132	2.839	2.628	2.501	2.496	3.0480	2.4339
1ST QUARTILE	25.045	3.302	1.399	2.047	22.370	0.1792	0.1875
2ND QUARTILE	38.040	5.255	2.040	3.525	29.922	0.5540	0.2855
3RD QUARTILE	58.470	7.695	3.207	8.577	40.002	1.0575	0.4975
VOL. WGT. MEAN	45.843	7.601	2.249	6.791	34.091	0.6128	0.3985

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

#07

STATION NAME : WATERLOO/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 1, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.3024	2.403	42.4035	1.6328	0.122	19.787	0.8012
MINIMUM	0.0052	0.179	0.9709	0.0441	0.006	1.569	0.0062
RANGE	0.2972	2.224	41.4326	1.5886	0.116	18.218	0.7950
ARITH. MEAN	0.0766	0.833	9.9276	0.7805	0.030	5.407	0.1976
ARITH. STD. DEV.	0.1030	0.627	12.1143	0.5082	0.029	5.731	0.2346
GEOM. MEAN	0.0351	0.651	5.7122	0.5687	0.023	3.691	0.1003
GEOM. STD. DEV.	3.6474	2.092	2.9314	2.7059	2.040	2.326	3.8124
1ST QUARTILE	0.0153	0.360	3.0765	0.3118	0.015	1.917	0.0476
2ND QUARTILE	0.0252	0.961	4.6529	0.6783	0.022	2.269	0.1040
3RD QUARTILE	0.0681	0.961	7.2997	1.0188	0.030	5.561	0.2008
VOL. WGT. MEAN	0.0766	0.833	9.9276	0.7805	0.030	5.407	0.1976

CADMIUM

	MG/M**2
# OF SAMPLES	12
MAXIMUM	0.21336
MINIMUM	0.00630
RANGE	0.20708
ARITH. MEAN	0.07713
ARITH. STD. DEV.	0.06221
GEOM. MEAN	0.05111
GEOM. STD. DEV.	2.99387
1ST QUARTILE	0.03562
2ND QUARTILE	0.06364
3RD QUARTILE	0.11087
VOL. WGT. MEAN	0.08091

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITNEY/CUMULATIVE PRECIP. #19

PERIOD OF REPORT : JAN 2, 85 TO JAN 2, 86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
13	102.0	6.1461	0	341.70	50.700	33.840	19.740
MAXIMUM	33.0	1.3366	*****	24.75	14.500	3.630	3.060
MINIMUM	69.0	4.8095	*****	316.95	36.200	30.210	16.680
RANGE	62.2	3.2004	*****	165.85	31.778	14.595	8.797
ARITH. MEAN	20.3	1.4144	*****	94.60	11.351	9.334	5.857
ARITH. STD. DEV.	59.3	2.9086	*****	136.62	29.734	11.782	7.328
GEOM. MEAN	1.4	1.5993	*****	2.06	1.487	2.032	1.855
GEOM. STD. DEV.	51.0	2.0717	*****	95.90	24.730	5.960	4.505
1ST QUANTILE	54.5	3.1295	*****	145.72	30.840	12.229	6.480
2ND QUANTILE	70.0	3.9666	*****	242.15	40.990	20.400	12.233
3RD QUANTILE	*****	3.1997	*****	165.81	31.771	14.595	8.795
VOL. WGT. MEAN							

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
12	64.480	3.360	4.160	13.630	50.960	2.4960	0.2500
MAXIMUM	4.620	0.082	0.082	0.510	1.950	0.0265	0.0165
MINIMUM	59.860	3.277	4.077	13.120	49.010	2.4695	0.2335
RANGE	22.163	1.777	1.330	3.591	17.608	0.6226	0.1304
ARITH. MEAN	16.609	1.036	1.482	3.665	14.088	0.6882	0.0906
ARITH. STD. DEV.	17.379	1.331	0.601	2.441	12.219	0.3251	0.0945
GEOM. MEAN	2.107	2.719	4.210	2.486	2.738	3.8752	2.5526
GEOM. STD. DEV.	10.245	0.965	0.139	1.355	9.125	0.1045	0.0405
1ST QUANTILE	19.220	1.555	0.450	2.265	13.467	0.5205	0.0900
2ND QUANTILE	27.350	2.470	2.230	4.359	25.305	0.7880	0.2160
3RD QUANTILE	22.158	1.777	1.330	3.590	17.604	0.6225	0.1263
VOL. WGT. MEAN							

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITNEY/CUMULATIVE PRECIP. #19

PERIOD OF REPORT : JAN 2, 85 TO JAN 2, 86

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES :	12	12	11	12	12	11	12
MAXIMUM :	0.1020	0.755	4.0476	1.1536	0.031	4.117	0.1498
MINIMUM :	0.0040	0.133	0.6131	0.0431	0.007	0.662	0.0083
RANGE :	0.0980	0.623	3.4345	1.1106	0.025	3.455	0.1415
ARITH. MEAN :	0.0201	0.295	2.2032	0.4423	0.015	2.413	0.0650
ARITH. STD. DEV :	0.0265	0.176	1.2131	0.3276	0.009	1.099	0.0485
GEOM. MEAN :	0.0132	0.258	1.8503	0.3305	0.013	2.150	0.0467
GEOM. STD. DEV. :	2.3390	1.688	1.9432	2.4085	1.657	1.720	2.5296
1ST QUANTILE :	0.0075	0.164	0.8414	0.2235	0.010	1.454	0.0244
2ND QUANTILE :	0.0156	0.266	1.9492	0.3061	0.011	2.224	0.0569
3RD QUANTILE :	0.0169	0.335	3.0999	0.6456	0.020	3.038	0.1060
VOL. WGT. MEAN :	0.0200	0.295	2.1336	0.4422	0.015	2.337	0.0650

CADMIUM

	MG/M**2
# OF SAMPLES :	12
MAXIMUM :	0.03478
MINIMUM :	0.00132
RANGE :	0.03346
ARITH. MEAN :	0.00775
ARITH. STD. DEV :	0.01037
GEOM. MEAN :	0.00451
GEOM. STD. DEV. :	2.66184
1ST QUANTILE :	0.00244
2ND QUANTILE :	0.00368
3RD QUANTILE :	0.00593
VOL. WGT. MEAN :	0.00775

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILBERFORCE/CUMULATIVE PRECIP. #18

PERIOD OF REPORT : JAN 2, 85 TO JAN 3, 86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
13	13	13	0	13	13	12	13
MAXIMUM	160.0	9.8655	*****	584.00	65.270	41.730	30.780
MINIMUM	36.0	2.0716	*****	36.00	21.960	1.710	2.310
RANGE	124.0	7.7939	*****	548.00	43.310	40.020	28.470
ARITH. MEAN	83.5	4.0904	*****	227.19	41.691	17.184	11.926
ARITH. STD. DEV.	35.3	2.1152	*****	150.13	14.530	12.058	7.167
GEOM. MEAN	76.5	3.7116	*****	185.13	39.433	12.737	10.002
GEOM. STD. DEV.	1.6	1.5494	*****	2.02	1.417	2.483	1.929
1ST QUARTILE	55.5	2.5629	*****	136.60	29.740	8.445	7.260
2ND QUARTILE	77.5	3.5834	*****	169.35	39.555	13.880	10.650
3RD QUARTILE	106.0	4.0916	*****	251.30	42.995	26.445	14.305
VOL. WGT. MEAN	*****	4.0904	*****	227.19	41.691	17.073	11.926

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHORUS MG/M**2	MANGANESE MG/M**2
13	13	12	13	13	13	13	13
MAXIMUM	65.800	6.420	5.885	12.540	51.800	2.5410	1.6170
MINIMUM	6.120	0.262	0.000	0.360	3.600	0.0000	0.0360
RANGE	59.680	6.157	5.885	12.180	48.200	2.5410	1.5810
ARITH. MEAN	31.419	2.270	1.794	4.609	24.600	0.7288	0.2919
ARITH. STD. DEV.	21.285	1.867	1.973	3.516	15.750	0.6786	0.4290
GEOM. MEAN	24.206	1.525	1.267	3.175	19.833	0.5290	0.1568
GEOM. STD. DEV.	2.236	2.839	3.078	2.830	2.080	3.1290	2.9865
1ST QUARTILE	15.160	0.845	0.061	1.785	14.385	0.1265	0.0572
2ND QUARTILE	22.035	1.980	0.600	3.787	16.545	0.7075	0.1535
3RD QUARTILE	44.535	2.880	2.787	5.552	33.125	0.8085	0.2325
VOL. WGT. MEAN	31.419	2.255	1.794	4.609	24.600	0.7288	0.2919

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILBERFORCE/CUMULATIVE PRECIP. #10

PERIOD OF REPORT : JAN 2, 85 TO JAN 3, 86

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	13	13	12	13	12	12	13
MAXIMUM	0.0749	0.579	8.4177	1.1000	0.054	12.326	0.2571
MINIMUM	0.0036	0.077	0.6502	0.1238	0.007	1.002	0.0077
RANGE	0.0713	0.502	7.7675	0.9762	0.046	11.325	0.2494
ARITH. MEAN	0.0302	0.325	2.5628	0.4810	0.021	4.395	0.1179
ARITH. STD. DEV	0.0218	0.146	2.1742	0.2964	0.013	3.779	0.0728
GEOM. MEAN	0.0218	0.290	1.9436	0.4005	0.017	3.257	0.0918
GEOM. STD. DEV.	2.5329	1.708	2.1493	1.9158	1.862	2.223	2.4204
1ST QUANTILE	0.0110	0.236	1.0174	0.2547	0.011	1.799	0.0699
2ND QUANTILE	0.0227	0.272	1.9375	0.3793	0.018	3.278	0.0848
3RD QUANTILE	0.0438	0.386	3.4235	0.5383	0.027	5.055	0.1478
VOL. WGT. MEAN	0.0302	0.325	2.5462	0.4810	0.021	4.367	0.1179

	CADMIUM
	MG/MM#2
# OF SAMPLES	13
MAXIMUM	0.01443
MINIMUM	0.00036
RANGE	0.01407
ARITH. MEAN	0.00521
ARITH. STD. DEV	0.00379
GEOM. MEAN	0.00364
GEOM. STD. DEV.	2.81506
1ST QUANTILE	0.00197
2ND QUANTILE	0.00461
3RD QUANTILE	0.00663
VOL. WGT. MEAN	0.00521

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
API03 - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILKESPORT/CUMULATIVE PRECIP. #04

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
13	13	12	0	12	12	10	12
MAXIMUM	194.0	15.0592	*****	795.40	102.820	52.380	31.680
MINIMUM	9.4	0.1711	*****	63.92	18.900	12.070	8.050
RANGE	184.6	14.8882	*****	731.48	83.920	40.310	23.630
ARITH. MEAN	76.5	5.2053	*****	315.77	48.523	34.315	18.463
ARITH. STD. DEV.	48.0	4.4876	*****	229.52	28.577	14.568	7.771
GEOM. MEAN	60.9	3.4490	*****	251.89	41.623	30.867	16.902
GEOM. STD. DEV.	2.2	3.1340	*****	2.04	1.788	1.686	1.568
1ST QUARTILE	34.5	2.5898	*****	172.10	27.725	20.165	10.995
2ND QUARTILE	73.7	3.9274	*****	234.55	39.542	34.260	17.595
3RD QUARTILE	98.0	5.7577	*****	384.87	59.615	44.752	25.610
VOL. WGT. MEAN	*****	4.9389	*****	308.87	47.463	31.508	18.060

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
11	11	10	9	10	12	11	11
MAXIMUM	85.050	8.730	15.225	8.786	78.000	7.1400	2.8350
MINIMUM	18.900	1.775	0.275	2.800	10.340	0.0710	0.0960
RANGE	66.150	6.955	14.950	5.986	67.660	7.0690	2.7390
ARITH. MEAN	49.857	5.703	4.576	5.333	38.534	1.2481	0.5326
ARITH. STD. DEV.	26.092	2.286	4.505	2.172	23.383	2.0205	0.7966
GEOM. MEAN	43.009	5.149	2.918	4.932	31.800	0.5506	0.3010
GEOM. STD. DEV.	1.810	1.690	3.091	1.525	1.958	3.8735	2.6991
1ST QUARTILE	22.025	3.417	1.652	3.170	18.255	0.1133	0.1270
2ND QUARTILE	42.306	6.087	3.190	5.197	34.352	0.6160	0.2403
3RD QUARTILE	72.300	6.622	4.247	6.540	58.555	1.1050	0.3965
VOL. WGT. MEAN	43.789	5.237	3.908	4.896	36.562	1.0962	0.4678

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SFF PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILKESPORT/CUMULATIVE PRECIP. 804

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.1056	1.827	13.9020	1.5895	0.095	11.930	0.1865
MINIMUM	0.0056	0.304	1.3294	0.0798	0.007	1.977	0.0104
RANGE	0.1000	1.523	12.5726	1.5097	0.087	9.953	0.1762
ARITH. MEAN	0.0467	0.695	4.4923	0.5363	0.035	4.491	0.0919
ARITH. STD. DEV	0.0336	0.421	3.5876	0.4564	0.026	3.003	0.0531
GEOM. MEAN	0.0357	0.609	3.5609	0.3761	0.027	3.807	0.0738
GEOM. STD. DEV.	2.5392	1.674	1.9881	2.5330	2.239	1.777	2.2143
1ST QUARTILE	0.0237	0.445	2.2461	0.2397	0.013	2.204	0.0467
2ND QUARTILE	0.0407	0.525	3.3497	0.3669	0.036	3.691	0.0846
3RD QUARTILE	0.0808	0.830	5.3269	0.8607	0.047	4.989	0.1315
VOL. WGT. MEAN	0.0454	0.648	4.1863	0.4998	0.033	4.185	0.0856

CADMIUM

	MG/M**2
# OF SAMPLES	12
MAXIMUM	0.01536
MINIMUM	0.00168
RANGE	0.01368
ARITH. MEAN	0.00953
ARITH. STD. DEV	0.00451
GEOM. MEAN	0.00811
GEOM. STD. DEV.	1.96411
1ST QUARTILE	0.00608
2ND QUARTILE	0.00984
3RD QUARTILE	0.01339
VOL. WGT. MEAN	0.00888

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WINISK/CUMULATIVE PRECIP. #29

PERIOD OF REPORT : JAN 28, 85 TO JAN 3, 86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
MAXIMUM	6	0.1066	0	49.98	4.160	19.458	95.676
MINIMUM	13.8	0.0019	*****	18.20	0.000	7.644	40.404
RANGE	362.5	0.1047	*****	31.78	4.160	11.814	55.272
ARITH. MEAN	89.3	0.0326	*****	26.04	2.137	13.833	64.729
ARITH. STD. DEV	150.9	0.0432	*****	13.16	1.957	4.864	24.472
GEOM. MEAN	40.2	0.0125	*****	26.02	1.524	13.076	61.167
GEOM. STD. DEV.	3.3	5.7408	*****	1.51	3.432	1.473	1.454
1ST QUARTILE	16.0	0.0021	*****	18.76	0.103	8.844	44.522
2ND QUARTILE	29.9	0.0117	*****	20.82	1.359	12.702	50.816
3RD QUARTILE	39.8	0.0262	*****	26.36	3.159	16.010	69.462
VOL. WGT. MEAN	*****	0.1044	*****	89.76	6.841	44.276	207.178

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHOR MG/M**2	MANGANESE MG/M**2
MAXIMUM	5	7.659	3.094	62.832	0.139	1.0240	0.2560
MINIMUM	1.820	2.821	0.000	28.800	0.000	0.3864	0.0182
RANGE	12.580	4.838	3.094	34.032	0.139	0.6376	0.2378
ARITH. MEAN	5.036	6.003	1.710	39.500	0.037	0.5854	0.0993
ARITH. STD. DEV	5.259	1.967	1.140	14.729	0.061	0.2700	0.1099
GEOM. MEAN	3.704	5.667	1.775	37.588	0.364	0.5437	0.0593
GEOM. STD. DEV.	2.202	1.506	1.383	1.407	3.160	1.5130	3.3233
1ST QUARTILE	2.338	4.370	0.682	29.415	0.000	0.4025	0.0230
2ND QUARTILE	2.946	5.959	1.659	30.195	0.000	0.4235	0.0615
3RD QUARTILE	3.052	6.807	2.046	37.918	0.023	0.5490	0.1756
VOL. WGT. MEAN	16.119	19.214	5.474	126.428	0.118	1.8737	0.2823

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WINISK/CUMULATIVE PRECIP. #29

PERIOD OF REPORT : JAN 28, 85 TO JAN 3, 86

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	4	4	4	4	4	4	4
MAXIMUM	0.0160	3.530	17.3760	0.4616	0.019	3.152	0.2973
MINIMUM	0.0055	0.092	0.7202	0.0737	0.004	0.887	0.0166
RANGE	0.0105	3.438	16.6558	0.3879	0.016	2.265	0.2808
ARITH. MEAN	0.0091	0.982	5.0882	0.2535	0.009	1.574	0.0998
ARITH. STD. DEV.	0.0049	1.699	8.1958	0.1753	0.007	1.058	0.1327
GEOM. MEAN	0.0083	0.295	1.9014	0.2023	0.008	1.373	0.0534
GEOM. STD. DEV.	1.6665	5.324	4.3464	2.2762	2.049	1.760	3.4764
1ST QUARTILE	0.0055	0.119	0.8225	0.1116	0.005	0.999	0.0232
2ND QUARTILE	0.0075	0.153	1.1284	0.2394	0.008	1.128	0.0426
3RD QUARTILE	0.0128	1.845	9.3539	0.3954	0.014	2.149	0.1763
VOL. WGT. MEAN	0.0260	2.791	14.4591	0.7204	0.027	4.472	0.2835

CADMIUM

	MG/M**2
# OF SAMPLES	4
MAXIMUM	0.00608
MINIMUM	0.00091
RANGE	0.00517
ARITH. MEAN	0.00240
ARITH. STD. DEV.	0.00248
GEOM. MEAN	0.00172
GEOM. STD. DEV.	2.42326
1ST QUARTILE	0.00093
2ND QUARTILE	0.00131
3RD QUARTILE	0.00388
VOL. WGT. MEAN	0.00683

PART VI

SUMMARY STATISTICS OF WET DEPOSITION BY REGION



ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31, 84 TO JAN 7, 86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH6.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
59	243.0	55	0	56	56	51	56
MAXIMUM	243.0	9.8655	*****	826.20	111.320	168.300	71.390
MINIMUM	1.5	0.0180	*****	5.25	0.870	0.000	0.180
RANGE	241.5	9.8475	*****	820.95	110.450	168.300	71.210
ARITH. MEAN	79.4	3.4351	*****	219.51	39.899	25.450	12.742
ARITH. STD. DEV.	43.5	2.0303	*****	163.48	20.504	26.359	10.649
GEOM. MEAN	65.8	2.7306	*****	166.97	33.971	16.286	9.510
GEOM. STD. DEV.	2.1	2.4479	*****	2.31	1.996	2.721	2.440
1ST QUARTILE	46.5	2.1609	*****	119.87	27.420	9.795	7.600
2ND QUARTILE	73.6	2.8922	*****	172.90	34.700	19.065	10.650
3RD QUARTILE	108.0	4.0916	*****	271.25	53.265	35.049	15.150
VOL. WGT. MEAN	*****	3.4292	*****	219.21	39.844	24.576	12.725

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
55	247.860	53	56	56	57	55	53
MAXIMUM	247.860	10.725	38.775	29.645	182.250	28.4310	1.6170
MINIMUM	1.320	0.000	0.000	0.090	0.000	0.0000	0.0150
RANGE	246.540	10.725	38.775	29.555	182.250	28.4310	1.6020
ARITH. MEAN	37.618	3.258	3.156	4.775	28.056	1.3802	0.3310
ARITH. STD. DEV.	40.104	2.570	6.144	4.845	29.633	4.1925	0.3804
GEOM. MEAN	25.958	2.217	1.443	2.976	18.661	0.4605	0.1839
GEOM. STD. DEV.	2.429	2.776	3.772	3.011	3.8765	3.1027	0.0715
1ST QUARTILE	13.860	0.844	0.262	1.597	10.650	0.1285	0.1700
2ND QUARTILE	27.630	2.882	1.675	3.570	19.575	0.4555	0.4185
3RD QUARTILE	45.900	4.857	3.460	6.702	36.562	0.8424	0.4185
VOL. WGT. MEAN	37.247	3.201	3.152	4.769	28.333	1.3666	0.3262

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31, 84 TO JAN 7, 86

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/MM2	MG/MM2	MG/MM2	MG/MM2	MG/MM2	MG/MM2	MG/MM2
# OF SAMPLES :	53	52	52	53	52	52	54
MAXIMUM :	0.1331	1.728	20.6307	1.4199	0.054	19.561	0.4437
MINIMUM :	0.0001	0.011	0.2088	0.0139	0.000	0.181	0.0019
RANGE :	0.1329	1.716	20.4219	1.4059	0.053	19.380	0.4418
ARITH. MEAN :	0.0291	0.413	3.8048	0.4707	0.020	4.413	0.0911
ARITH. STD. DEV. :	0.0268	0.331	3.7523	0.2930	0.012	4.269	0.0905
GEOM. MEAN :	0.0194	0.313	2.5026	0.3797	0.016	2.879	0.0602
GEOM. STD. DEV. :	2.9552	2.283	2.5902	2.1122	2.307	2.647	2.8993
1ST QUANTILE :	0.0120	0.224	1.2852	0.2446	0.010	1.469	0.0376
2ND QUANTILE :	0.0238	0.331	2.4066	0.3846	0.019	2.914	0.0648
3RD QUANTILE :	0.0351	0.514	5.8237	0.5814	0.028	5.716	0.1037
VOL. MGT. MEAN :	0.0287	0.405	3.7471	0.4640	0.020	4.346	0.0906

CADMIUM

	MG/MM2
# OF SAMPLES :	52
MAXIMUM :	0.03146
MINIMUM :	0.00030
RANGE :	0.03116
ARITH. MEAN :	0.00698
ARITH. STD. DEV. :	0.00691
GEOM. MEAN :	0.00448
GEOM. STD. DEV. :	2.80517
1ST QUANTILE :	0.00239
2ND QUANTILE :	0.00530
3RD QUANTILE :	0.00778
VOL. MGT. MEAN :	0.00684

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 1, 85 TO JAN 2,86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH8.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
MAXIMUM	97	95	0	95	95	93	95
MINIMUM	126.9	0.3867	*****	592.83	90.897	54.567	66.510
RANGE	12.0	0.1632	*****	12.72	1.480	0.000	0.000
ARITH. MEAN	114.9	0.2235	*****	580.11	89.417	54.567	66.510
ARITH. STD. DEV.	60.6	2.7223	*****	146.62	25.917	12.566	8.137
GEOM. MEAN	27.0	1.8212	*****	108.26	18.111	11.276	9.595
GEOM. STD. DEV.	53.8	2.1149	*****	109.60	20.096	8.086	5.242
1ST QUARTILE	1.7	2.1787	*****	2.28	2.152	2.689	2.565
2ND QUARTILE	40.0	1.3208	*****	59.25	11.084	4.017	2.730
3RD QUARTILE	58.0	2.3143	*****	119.43	21.391	7.969	5.925
VOL. WGT. MEAN	76.5	3.6208	*****	209.56	34.260	16.520	9.430
	*****	2.6832	*****	147.54	26.079	12.416	8.188

# OF SAMPLES	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
MAXIMUM	94	95	92	94	96	94	91
MINIMUM	83.840	11.760	13.320	53.650	266.000	4.9500	1.1264
RANGE	1.341	0.000	0.000	0.097	0.000	0.0000	0.0150
ARITH. MEAN	82.499	11.760	13.320	53.552	266.000	4.9500	1.1114
ARITH. STD. DEV.	23.741	2.290	2.246	4.184	19.426	0.6467	0.2148
GEOM. MEAN	19.944	2.206	2.486	7.580	30.188	0.8964	0.2190
GEOM. STD. DEV.	16.434	1.357	1.262	1.961	9.555	0.3336	0.1329
1ST QUARTILE	2.522	3.263	3.447	3.512	3.785	3.4367	2.8084
2ND QUARTILE	8.940	0.611	0.350	0.700	4.447	0.1175	0.0526
3RD QUARTILE	18.050	1.730	1.715	2.260	11.592	0.3713	0.1560
VOL. WGT. MEAN	29.625	2.897	3.275	4.359	24.505	0.7039	0.2640
	23.718	2.285	2.245	4.174	19.430	0.6460	0.2108

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 1, 85 TO JAN 2, 86

PAGE : 2

	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	92	90	89	92	92	90	91
MAXIMUM	0.2340	1.642	23.9230	1.6617	0.049	17.928	0.5351
MINIMUM	0.0029	0.033	0.1894	0.0373	0.000	0.274	0.0040
RANGE	0.2311	1.608	23.7336	1.6245	0.049	17.654	0.5312
ARITH. MEAN	0.0338	0.385	2.6838	0.3980	0.015	2.715	0.0933
ARITH. STD. DEV.	0.0396	0.337	3.2413	0.3167	0.009	2.571	0.0994
GEOM. MEAN	0.0211	0.277	1.7758	0.2907	0.014	2.004	0.0599
GEOM. STD. DEV.	2.6475	2.281	2.4559	2.3301	1.786	2.164	2.6489
1ST QUANTILE	0.0100	0.150	0.9608	0.1686	0.009	1.218	0.0325
2ND QUANTILE	0.0206	0.277	1.7959	0.3112	0.013	1.985	0.0608
3RD QUANTILE	0.0408	0.489	3.1006	0.5082	0.020	3.357	0.1146
VOL. MGT. MEAN	0.0333	0.377	2.6233	0.3938	0.015	2.665	0.0921

	CADMIUM
	MG/MM#2
# OF SAMPLES	92
MAXIMUM	0.03922
MINIMUM	0.00035
RANGE	0.03887
ARITH. MEAN	0.00650
ARITH. STD. DEV.	0.00672
GEOM. MEAN	0.00444
GEOM. STD. DEV.	2.44815
1ST QUANTILE	0.00269
2ND QUANTILE	0.00465
3RD QUANTILE	0.00814
VOL. MGT. MEAN	0.00641

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2, 85 TO JAN 3, 86

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/MM2	TOTAL H+ TO PH8.3 MG/MM2	SULPHATE MG/MM2	NITRATE AS N MG/MM2	CALCIUM MG/MM2	CHLORIDE MG/MM2
98	98	96	0	95	95	93	95
MAXIMUM	396.3	6.2009	*****	342.14	60.084	203.740	95.676
MINIMUM	5.6	0.0019	*****	6.82	0.000	0.846	0.000
RANGE	390.7	6.1991	*****	335.32	60.084	202.894	95.676
ARITH. MEAN	68.9	0.7436	*****	77.08	13.457	17.150	8.772
ARITH. STD. DEV.	58.3	0.9869	*****	72.42	10.751	24.024	15.257
GEOM. MEAN	49.2	0.3457	*****	49.51	9.533	10.018	4.551
GEOM. STD. DEV.	2.4	4.2937	*****	2.71	2.471	2.932	2.626
1ST QUARTILE	23.3	0.1704	*****	21.67	4.724	5.493	2.168
2ND QUARTILE	58.0	0.3913	*****	52.25	10.964	11.058	3.705
3RD QUARTILE	95.1	0.9656	*****	99.16	16.910	18.570	8.319
VOL. WGT. MEAN	*****	0.7890	*****	80.55	14.081	17.456	9.179

# OF SAMPLES	KJELDAHL AS N MG/MM2	MAGNESIUM MG/MM2	POTASSIUM MG/MM2	SODIUM MG/MM2	AMMONIUM AS N MG/MM2	PHOSPHOR MG/MM2	MANGANESE MG/MM2
93	93	93	93	93	96	93	87
MAXIMUM	109.020	31.110	14.030	62.832	69.865	9.8910	5.0020
MINIMUM	1.264	0.044	0.000	0.337	0.000	0.0340	0.0141
RANGE	107.756	31.065	14.030	62.495	69.865	9.8570	4.9879
ARITH. MEAN	22.658	2.682	2.207	6.046	14.583	0.8451	0.3087
ARITH. STD. DEV.	22.366	3.917	2.563	9.310	16.161	1.4292	0.5961
GEOM. MEAN	13.288	1.260	1.219	3.469	5.965	0.4982	0.1411
GEOM. STD. DEV.	3.129	3.848	3.559	2.640	4.956	2.9147	3.8330
1ST QUARTILE	5.000	0.471	0.504	1.883	1.422	0.2181	0.0456
2ND QUARTILE	16.390	1.630	1.407	2.957	9.141	0.4252	0.1581
3RD QUARTILE	30.343	2.939	2.989	5.970	24.409	0.8351	0.3072
VOL. WGT. MEAN	23.165	2.730	2.246	6.154	15.226	0.8640	0.3014

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2, 85 TO JAN 3, 86

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	87	87	87	87	87	87	87
MAXIMUM	0.7621	3.530	47.8606	1.7407	0.171	28.487	1.0620
MINIMUM	0.0016	0.035	0.2261	0.0230	0.002	0.379	0.0045
RANGE	0.7605	3.495	47.6345	1.7176	0.169	28.108	1.0574
ARITH. MEAN	0.0298	0.328	3.9220	0.2730	0.018	3.627	0.0816
ARITH. STD. DEV.	0.0837	0.473	6.5396	0.2657	0.021	4.828	0.1331
GEOM. MEAN	0.0134	0.216	2.0729	0.1855	0.012	2.300	0.0453
GEOM. STD. DEV.	2.9709	2.286	2.9112	2.5149	2.339	2.441	2.7949
1ST QUANTILE	0.0060	0.135	0.9335	0.1014	0.007	1.217	0.0215
2ND QUANTILE	0.0118	0.185	2.0577	0.2011	0.013	2.136	0.0393
3RD QUANTILE	0.0258	0.344	3.6480	0.3470	0.020	3.783	0.0944
VOL. WGT. MEAN	0.0291	0.320	3.8291	0.2665	0.017	3.541	0.0797

CADMIUM

	MG/M**2
# OF SAMPLES	87
MAXIMUM	0.18180
MINIMUM	0.00023
RANGE	0.18157
ARITH. MEAN	0.00671
ARITH. STD. DEV.	0.02071
GEOM. MEAN	0.00259
GEOM. STD. DEV.	3.14727
1ST QUANTILE	0.00114
2ND QUANTILE	0.00219
3RD QUANTILE	0.00551
VOL. WGT. MEAN	0.00656

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

PAGE : 1

	PRECIP. MM	FREE H+ LAB MG/MM#2	TOTAL H+ TO PH6.3 MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2	CHLORIDE MG/MM#2
# OF SAMPLES	52	48	0	50	50	45	49
MAXIMUM	150.0	7.6929	*****	435.00	58.520	48.150	19.110
MINIMUM	4.0	0.2249	*****	17.40	2.960	1.820	0.480
RANGE	146.0	7.4680	*****	417.60	55.560	46.330	18.630
ARITH. MEAN	60.6	2.8354	*****	162.26	29.823	16.803	7.756
ARITH. STD. DEV	26.5	1.5770	*****	95.07	11.882	11.430	4.639
GEOM. MEAN	53.7	2.3610	*****	133.03	26.929	13.006	6.105
GEOM. STD. DEV.	1.8	1.9762	*****	2.01	1.672	2.194	2.230
1ST QUARTILE	40.0	1.6044	*****	88.80	22.230	7.775	4.195
2ND QUARTILE	59.5	2.7858	*****	146.40	27.510	14.820	7.200
3RD QUARTILE	78.6	3.5403	*****	213.60	36.330	21.440	9.980
VOL. WGT. MEAN	*****	2.7817	*****	158.95	29.213	16.410	7.654

	KJELDAHL AS N MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2	PHOSPHOR MG/MM#2	MANGANESE MG/MM#2
# OF SAMPLES	49	45	44	47	49	49	49
MAXIMUM	69.600	15.500	5.460	18.124	55.680	1.9950	0.8800
MINIMUM	4.120	0.230	0.000	0.200	2.100	0.0000	0.0200
RANGE	65.480	15.270	5.460	17.924	53.580	1.9950	0.8600
ARITH. MEAN	23.518	2.682	1.839	3.348	17.848	0.3138	0.2179
ARITH. STD. DEV	13.352	2.512	1.526	3.159	11.507	0.3448	0.1939
GEOM. MEAN	19.799	1.849	1.332	2.286	14.120	0.2009	0.1457
GEOM. STD. DEV.	1.865	2.562	2.719	2.548	2.103	2.9824	2.5928
1ST QUARTILE	12.900	0.937	0.531	1.175	9.165	0.1010	0.0686
2ND QUARTILE	20.220	2.225	1.827	2.334	15.282	0.1922	0.1540
3RD QUARTILE	32.715	3.300	2.542	4.677	25.805	0.4075	0.3020
VOL. WGT. MEAN	23.209	2.619	1.773	3.275	17.614	0.3096	0.2107

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : JAN 2, 85 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES :	49	49	49	48	49	48	49
MAXIMUM :	0.1350	1.468	14.1185	1.0495	0.054	12.925	0.4553
MINIMUM :	0.0004	0.038	0.2032	0.0319	0.002	0.227	0.0033
RANGE :	0.1346	1.430	13.9153	1.0176	0.052	12.698	0.4521
ARITH. MEAN :	0.0290	0.351	2.6154	0.3393	0.015	2.778	0.0788
ARITH. STD. DEV. :	0.0273	0.268	2.4910	0.2414	0.009	2.272	0.0818
GEOM. MEAN :	0.0182	0.275	1.8671	0.2573	0.013	2.147	0.0501
GEOM. STD. DEV. :	3.0154	2.071	2.3172	2.2696	1.766	2.081	2.8025
1ST QUARTILE :	0.0079	0.182	1.0592	0.1654	0.009	1.368	0.0307
2ND QUARTILE :	0.0210	0.295	2.0006	0.2702	0.013	2.200	0.0513
3RD QUARTILE :	0.0402	0.421	3.0446	0.4532	0.017	3.222	0.0939
VOL. WGT. MEAN :	0.0280	0.339	2.5286	0.3260	0.014	2.662	0.0762

CADMIUM

	MG/M**2
# OF SAMPLES :	48
MAXIMUM :	0.02968
MINIMUM :	0.00004
RANGE :	0.02964
ARITH. MEAN :	0.00697
ARITH. STD. DEV. :	0.00689
GEOM. MEAN :	0.00401
GEOM. STD. DEV. :	3.52826
1ST QUARTILE :	0.00203
2ND QUARTILE :	0.00540
3RD QUARTILE :	0.00872
VOL. WGT. MEAN :	0.00672

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31, 84 TO DEC 31, 85

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# OF SAMPLES	PRECIP. MM	FREE H+ LAB MG/M**2	TOTAL H+ TO PH6.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2
112	112	106	0	108	108	99	107
MAXIMUM	230.3	20.0643	*****	1427.86	170.422	142.786	126.250
MINIMUM	9.4	0.0033	*****	24.50	1.750	2.680	1.050
RANGE	220.9	20.0610	*****	1403.36	168.672	140.106	125.200
ARITH. MEAN	78.8	4.2921	*****	281.15	44.335	33.010	16.146
ARITH. STD. DEV.	48.0	3.7768	*****	205.68	26.612	22.208	14.766
GEOM. MEAN	63.8	2.7667	*****	223.78	36.860	26.818	12.410
GEOM. STD. DEV.	2.0	3.2393	*****	2.03	1.939	1.986	2.070
1ST QUANTILE	40.5	1.8946	*****	161.52	26.860	17.555	7.185
2ND QUANTILE	71.0	3.2635	*****	251.55	39.315	28.485	13.315
3RD QUANTILE	105.0	5.2488	*****	328.72	56.680	43.950	19.015
VOL. WGT. MEAN	*****	4.2040	*****	280.21	44.188	32.419	15.964

# OF SAMPLES	KJELDAHL AS N MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2	PHOSPHORUS MG/M**2	MANGANESE MG/M**2
105	105	101	98	101	108	104	106
MAXIMUM	419.146	31.090	44.908	83.750	340.844	32.7026	2.8350
MINIMUM	5.600	0.350	0.000	0.530	2.100	0.0000	0.0350
RANGE	413.546	30.740	44.908	83.220	338.744	32.7026	2.8000
ARITH. MEAN	46.125	6.056	3.619	5.837	35.942	1.1218	0.3458
ARITH. STD. DEV.	44.819	4.299	5.962	8.761	36.102	3.4164	0.3430
GEOM. MEAN	36.199	5.072	2.162	4.018	27.020	0.4544	0.2496
GEOM. STD. DEV.	1.976	1.848	2.671	2.227	2.189	3.2679	2.2539
1ST QUANTILE	24.670	3.799	1.121	2.252	17.685	0.1717	0.1370
2ND QUANTILE	36.925	5.525	2.450	4.030	29.922	0.4985	0.2675
3RD QUANTILE	54.300	6.695	3.902	6.802	42.972	0.9280	0.4245
VOL. WGT. MEAN	44.812	6.026	3.566	5.808	35.702	1.0828	0.3379

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT MEAN DEPOSITION GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/CUMULATIVE PRECIP.

PERIOD OF REPORT : DEC 31, 84 TO DEC 31, 85

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	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER
	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2	MG/MM#2
# OF SAMPLES	107	107	104	108	108	103	107
MAXIMUM	0.5988	3.404	42.4035	1.8328	0.189	25.868	0.8420
MINIMUM	0.0026	0.130	0.7672	0.0441	0.003	1.194	0.0062
RANGE	0.5962	3.274	41.6362	1.5886	0.186	24.674	0.8357
ARITH. MEAN	0.0586	0.641	5.1209	0.4959	0.026	4.733	0.1098
ARITH. STD. DEV.	0.0870	0.513	5.7342	0.3674	0.026	4.123	0.1351
GEOM. MEAN	0.0298	0.510	3.6224	0.3722	0.019	3.663	0.0709
GEOM. STD. DEV.	3.1124	1.940	2.1987	2.233	2.233	1.980	2.5264
1ST QUANTILE	0.0120	0.316	2.0442	0.2293	0.012	2.137	0.0421
2ND QUANTILE	0.0280	0.503	3.5035	0.3632	0.021	3.249	0.0734
3RD QUANTILE	0.0570	0.789	6.3903	0.6889	0.030	5.605	0.1214
VOL. WGT. MEAN	0.0576	0.636	5.0755	0.4916	0.026	4.658	0.1081

CADMIUM

	MG/MM#2
# OF SAMPLES	106
MAXIMUM	0.21338
MINIMUM	0.00040
RANGE	0.21298
ARITH. MEAN	0.01778
ARITH. STD. DEV.	0.03310
GEOM. MEAN	0.00769
GEOM. STD. DEV.	3.33742
1ST QUANTILE	0.00414
2ND QUANTILE	0.00720
3RD QUANTILE	0.01320
VOL. WGT. MEAN	0.01777